

**BP Pushes LLDPE** 

#### **INSIDE CMR**

DU PONT SHIFT: The company sets up a new automotive unit with annual sales of \$2 billion based at Michigan center. Autos are the company's biggest market.....Page 3

TECHNOLOGY: Conossman's bill that would cre-E nnew agency to oversee the developing biotechnology in-" altry is a racked by industry. , urged. . . . . . . . Page 5

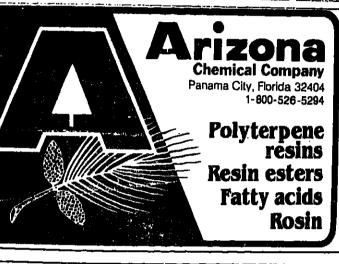
INTERFERON: FDA apr oves the use of human alpha eron for treatment of hairy cell leukemia. Schering-Plough, ningen, Roche bring product to market......Page 5

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ORTHOXYLENE: Following six years of 7 percent annual de-clines in consumption, US producers see a 'mini-recovery' that could last until 1990. Capacity still excessive.... Page 7

DDT CASE: Olin agrees to a \$15 million compensation fund to settle litigation over DDT ex-posure in Northern Alabama arsenal. Hearings set for 



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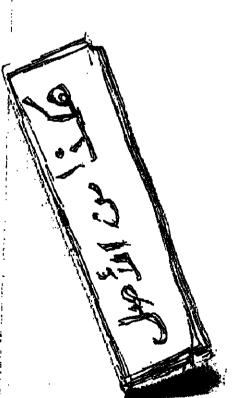
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# THE TIPST U.S. Patent was chemical... **Akzo Chemie America chemists** recently added to the list.

In a curious coincidence of history, the first U.S. patent was a chemical patent for obtaining potash. In 1938 the first use for Armak Chemicals fatty amines was as a flotation reagent for recovering potash. Since then, chemists at Akzo Chemia America have been busy in numerous fields as evidenced by

UNITED STATES PATENT [14] Zakaria [11] 4,398.919

154) POLYETHOXYLATED COMPOUNDS AS COAL WATER SLURRY SURFACTANTS 1751 INVENTOR Monech Zakaria, Western Springs, III.

ABSTRACT ABST RACT
The present invention is directed to squeouscomminuted coal slumins. Specifically, the invention is directed to sturies that include as surfactants about 0 1 to 0.5 weight percent surfacilcompounds, as for exemple polycrysthylens (2)
oleantials, and which typically have a coal solids
content of 70%

UNITED STATES PATENT 1191

|54| USE OF ETHOXYLATER DIALKYL QUATERNARY AMMONIUM DERIVA-TIVES AS SUSPENDING AGENTS FOR COALOIL MIXTURES

1751 INVENTOR: Thomas C. Newman, Hinsdale, III. ABSTRACT

ifefora trearoproduction of the first U.S. pate

UNITED STATES PATENT 1191 Richmond 11114.399.044 541 TEXTILE SOFTENING COMPOSITION [75] INVENTOR: James M. Richmond, Naparville, III.

UNITED STATES PATENT [19]
Richmond [11] 4,401,577

154] QUATERNARY AMMONIUM
DINYDROBORATES IN FABRIC
SOFIENER FORMULATIONS

157] ABSTRAC I
A method for the manufacture of urethane-modifier polylsocyanurate foants in which an isocyanate is blanded with a "B" side comprising a polyof bland, a surfacant, a blowing agent, and a catalyst. The polyof bland comprises at least 5% (wil.) of a mixture of a polyalkoxylated amine and a polyalkoxylated qualernary ammonium borate eater, at least 40% (wil.) of a resin polyof, with any remaineder being a polyather or polyester polyof. All components of the "B" side will remain a homogeneous liquid without phase separation and without the need for agritation for at least 7 days after blending. The resin polyofs are preferably moderate viscosity, aromatic polyaster polyofs derived from polycanbomethoxyl-substituted diphenyls, polyphenyls, and benzyl esters of the toluste lamily.

UNITED STATES PATENT [19] chmond | | | 4,409,109 ABSTRACT

For more information contact Akzo Chemie America, Armak Chemicals, 300 South Wacker Drive, Dept. AP, Chicago, Illinois 60606.

**Akzo Chemie America** 

1541 POLYOLS FOR URETHANE-MODIFIED ISOCYANURATE FOAMS

eral judge last week to order Food & Drug Administration to ban methylene chloride, a suspected carcinogen that is routinely used to decaffeinate coffee.

Consumer Federation of America and Public Citizen said in a suit filed in US District Court that FDA and Health and Human Services Department are violating the Delaney Clause of the Food, Drug and Cosmetic Act—a provision that requires a ban on chemicals that cause cancer in animals.

The suit said several scientific studies have found that methylene chloride causes cancer in the livers and lungs of mice and may cause cancer in the mammary and saliva glands as well.

Last December, FDA proposed to ban the

the amount used to take caffeine out of coffee is "considered to be safe." It said fewer than one out of one million people would develop cancer from lifetime consumption of coffee treated with methylene chloride.

Consumer Groups Ask FDA Ban on Methylene Chloride

FDA spokesman Emil Corwin said until the agency is able to examine the complaint in detail and consider its implications, "Our position is the same as it was in December."

Katherine Meyer, the attorney representing the consumer groups, said, "The law clearly provides that food additives that cause cancer in animals must be banned from the food supply. Anything less than a total ban violates the law and deprives con-

sumers of the protection Congress intended. "The FDA's unwillingness to abide by the law is particularly egregious in light of the Meyer said.

"Unfortunately, consumers cannot tell which brands use methylene chloride simply by reading the labels," she added.

The lawsuit also claimed Federal officials decided that "only a small number of cancers will be caused by exposure to the substance" in decaffeinated coffee and did not propose a

continue to ignore the laws enacted to protect the public's health, in favor of protecting the The trade group notes that e profits of the food industry," said Dr. Sidney
Wolf, director of Public Citizen's Health Research Group

French subsidiary, BP Chimie.

**To Study Joint Projects** 

cals projects in Japan.

chemical products.

tives and "CR-39" monomer.

PPG Industries, Inc. and Nippon Oil &

flame retardant resins and non-opthalmic fabricated products based on PPG's "CR-39"

optical quality monomer, according to

Robert D. Duncan, vice-president of the com-

Two consumer groups asked a Fed- chemical's use in cosmetic products, but said fact that some manufacturers of decaf- The potential cancer-causing effects of feinated coffee use safe alternatives, such as methylene chloride are being investigated by water, in the decaffeination process," Miss Environmental Protection Agency, Con-

act Safety Commission, and Oc-

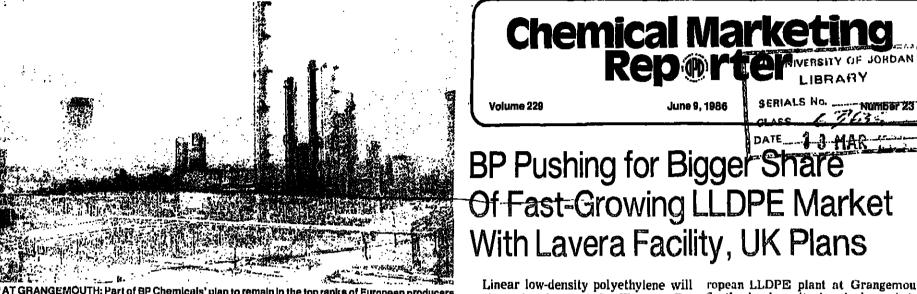
ic , as well as by FDA.
The Halogenated Solvents Industry Almance, a trade group representing all methylene chloride producers, maintains: "Consumer safety is one of the reasons methylene chloride has been safely and widely used for some 50 years." The produc-The FDA decision "is disastrous— it ers have questioned the relevance of certain would allow the Reagan Administration to animal tests to humans, and are in the proc-

showed no increase in cancer.

Chemical Marketing

Of Fast-Growing LLDPE Market

Reporterity of Jordan



the automotive products department, that will combine the company's automotive businesses which account for \$2 billion in annual sales. The worldwide automotive industry represents Du Pont's single largest market segment. Commenting on formation of the new unit, Edgar S. Woolard, Jr., vice-chairman of Du Pont, said it later this year the building of a second Eu-

He pointed out that if the new unit was an independent company it would "rank among Fortune's list of the nation's top 200 firms." Headquartered at Du Pont's \$25 million

corporate automotive development center in Troy Mich., which was dedicated last year, the department will be headed by John P. McAndrews, group vice-president. The Du Pont executive formerly headed the finishes and fabricated products department and will

Additionally, he notes a trend toward providing component systems to auto makers and says he believes Du Pont will become a major systems supplier based on its technical know-how and broad product offering.

Du Pont's current automotive business is in North America, the company also plays a major role in supplying markets in Europe, Latin America and the Asia Pacific area.

ess of expanding operations to better serve automotive customers there. For example, in Japan, he says the company supplies englneering polymers and "Vespei" polyimide parts from its facilities at Utsunomiya and Continued on Page 26

With Lavera Facility, UK Plans Linear low-density polyethylene will push up its share of the Western Eu-Scotland, where it already has substantial

polyethylene capacity. ropean polyethylene market from 10 Linear low is the key to BPCI's plans to percent at present to 25 percent by 1990, remain a leading force in Europe's predicts BP Chemicals International polyethylene market. (BPCI), British Petroleum's chemicals

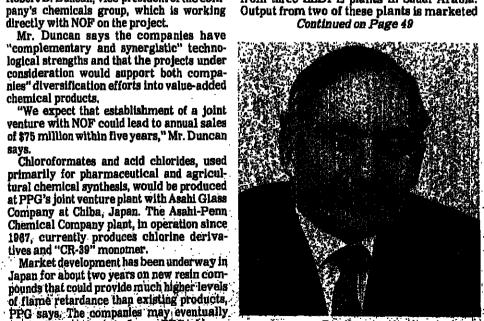
The company has pinpointed polyethylene. along with acetic acid and specialty chemi-BPCI itself expects to take a sizeable share cals and plastics like performance polymers and polyisobutenes, as the three main sectors of that increase at the premium end of the market following the commissioning earlier this year of its new gas-phase LLDPE plant at Lavera, near Marseilles, France, run by its on which to concentrate its future investment and research.

"We have the strength in raw material and marketing as well as the technological re-The company is also expected to announce sources to make polyethylenes a strategically important area for us," said Ray Knowland, BPCI's managing director at a press conference at the official opening of the Lavera plant May 29.

The company is already one of the region's major polyethylene producers with capacity of around 600,000 metric tons a year.

Current negotiations with Bayer of Germany for BPCI to take over the marketing of the polyethylene from the companies' joint venture Erdolchemie at Worringen in West Fats Company have agreed to study joint development of several specialty chemi-Germany would make it the number two producer in Europe, with a total capacity of Under initial consideration are programs involving chloroformates, acid chlorides,

Unlike the US, linear low poly has been slow to penetrate the European polyethylene market, but has been considerably boosted by a flow of imports over the last two years from three LLDPE plants in Saudi Arabia. Output from two of these plants is marketed



produce the products in Japan, PPG adds. Ray Knowland June 0, 1986 CHEMICAL MARKETING DECOM

# **DuPont Sets Automotive Unit** With \$2 Billion in Annual Sales

E.I. du Pont de Nemours & Co. has set up a new industrial department, to be called

"represents a major restructuring of our resources" to serve the automotive in-**PPG**, Nippon Oil Agree dustry worldwide.

relocate to Detroit.

PRODUCTS FOR AUTOS

Mr. McAndrews says the new department will allow the company to better concentrate on the worldwide automotive industry with its products which range from high performance finishes and thermoplastics to structural composites, electronics and specialty polymers, films and chemicals.

"The total opportunity for automotive materials is tremendous," he says, "and we fully expect this opportunity to increase four-fold

For Polyester Staple in N.C. Celanese Fibers will reduce production caacity for polyester textile staple at its Salis-

DU PONT AUTO CENTER: Troy, Mich. Du Pont executives examine a display featuring "Bexloy" automotive engineering resin and "Surlyn" inomer resins application in automo-

**Celanese Cuts Capacity** 

bury, N.C., plant by 185 million pounds over

ductions, will bring capacity more into bal-

ance with expected demand. This move will

The permanent shutdown of older produc-

ion equipment will require the elimination

have no significant effect on income.

the next 18 months.

Mr. McAndrews says that while much of This capacity reduction at Salisbury, in addition to previously announced industry re-In Asia, he says the company is in the proc-

buring theraw askes in a sure levelow in pursuance of the act entities. Here the said and exclusive Right and with the time of fourth Hereby and holidown water, according to the time here is questioned and holidown water, according to the United Hates when here I have the patient, his their administrators and african to these being different patient, and the hal of the United Hates when here to other the said Discovery of humany thereof show toward these delices to be made patient, and the hal of the United where the other the said Discovery of humany where I show toward these delices to be made patient, and the house one thousand seven hundred the other aforesaid. In Terrimony where I show this thirty feet Day of hely in the Usar of our bridge of New York this thirty feet Day of hely in the Usar of our bridge.

CHEMICAL MARKETING REPORTER

# **PVC Producers Seek to Raise** June Prices to Repair Inroads Made in the US Market Earlier

Polyvinyl chloride resin producers, squeezed for supplies of raw material vinyl chloride monomer, have implemented 2-cent-per-pound resin price increases at the beginning of June, thereby attempting to regain price levels that had eroded in May.

B.F. Goodrich Company, the nation's largest PVC resin producer has established a June 1 price schedule of 30 cents per pound for pipe grade PVC resin; 31 cents per pound for general purpose homopolymer; 32 cents per pound for "special purpose" and wire and cable grade resin, and 33 cents per pound for film grade resin. A company spokesman says the action "restores prices" to April levels before a May slide in selling values.

Vinyl chloride is traditionally tight at this time of year, but operational problems experienced by two integrated VCM-PVC producers in May has caused dislocations in the market, sources say. B.F. Goodrich had to

close its La Porte VCM plant, rated at 1 billion pounds per year, for five to six days last month, and also ran into problems at its Calvert City, Ky., plant, one VCM source says. Formosa, also an integrated producer has lost several days of production at its 420million-pound Baton Rouge, La. VCM plant, the source adds.

Both Goodrich and Formosa have attempted to buy VCM in the open market, sources say, but were largely unsuccessful. because most excess material had been committed to the export market. As a result, one analyst says Goodrich has been forced to cut production of PVC and dip heavily into its supply of inventories.

A VCM maker calls the situation a "temporary dislocation." He says that if a company wanted to contract large quantities of VCM. his needs could be met, but large spot orders are impossible to meet because export demand is strong and VCM producers, failing to

# Dye Decision Avoided Yet Again tor of Public Citizen's Health Research

Food & Drug Administration last week postponed a decision, for the 30th time in 23 years, on whether to ban five widely used food and drug dyes, four of which have been shown to cause cancer in laboratory animals.

The postponement means the color additives will remain on the market until FDA makes a final decision.

Agency spokesman James Greene says the delay will permit FDA to conduct further scientific review of the dyes, but consumer groups and some congressional critics believe the postponement is a result of industry pressure.

"The agency is just trying to figure out how they can rationalize the fact that

Ciba-Geigy to Cut

dyestuffs, there.

mented last week.

**Toms River Workforce** 

In Restructuring Move

tension, depression and arthritis.

pharmaceutical unit are completed.

employed at Toms River. It is estimated that

about 325 will be employed there several years from now, when the restructuring and

Phasing out synthesis of industrial chemi-

cals at Toms River will "result in a signifi-

cant reduction of our production-generated

waste and thus is compatible with the resi-

dential and recreational nature of the sur-

president and chief executive officer, com-

In announcing these developments, the

company also reaffirmed its previous com-

FDA believes the dyes are harmless and agrees with industry that the substances can cause cancer only if they are con-sumed in massive quantities. "The contin-ued provisional use of these additives presents no hazard to the public health," says

FDA was required by the Food, Drug and Cosmetic Act to evaluate the safety of all color additives by January 1963. A congressional report sharply criticized the agency last year for its inaction.

"This is an ongoing embarrassment to the whole regulatory process," said Rep. Ted Weiss (D-NY), chairman of the House they're breaking the law by allowing can-cer-causing chemicals in food, drugs and cosmetics," says Dr. Sidney Wolfe, direc-with the interests of industry.

# **TSCA Reports** Mandated by EPA In a Final Ruling

Environmental Protection Agency last week issued a final rule requiring chemical manufacturers and importers to report current production and plantsite information on thousands of commercial chemicals.

The new rule, mandated by the Toxic Substances Control Act, requires companies to report to EPA this year and again every four

EPA says the information will be used for preliminary assessment of risk to human realth and the environment.

"The data for many chemicals in the existing inventory are becoming increasingly obsolete, and we need updated, readily available production volume and plant-site data," says Dr. John Moore, assistant administrator for pesticides and toxic substances.

"This kind of information gives us a preliminary indication of a chemical's potential for human and environmental exposure and will help us target our regulatory efforts," he

The rule requires the first substantial update of production and plant-site data for chemicals listed on EPA's chemical substances inventory. The original inventory was developed under TSCA and required the reporting of 1977 production information.

EPA will collect the latest information on chemicals in the current inventory on a plant-by-plant basis, including each chemical's identity, whether the firm is a manufacturer or importer, the site of the plant where it is manufactured or imported, whether use of the substance is limited to the site where it is manufactured, how much is produced, the plant's technical contact person and whether any of the information is confidential.

TSCA gives companies the right to claim inventory data as confidential when absolutely necessary, but confidentiality claims must be asserted and supported when they submit the data to EPA.

"EPA strongly encourages firms to limit

# Auto Plastic Uses by Japanese in the US Seen Having Major Impact on the Industry

Ciba-Geigy Corporation said last nually by Japanese and Korean compa- enter non-automotive markets. week that it will phase out the synthesis nies in North America by the early 90's of resins and dyestuffs at its Toms River, will concentrate purchasing power for N.J., plant over the next several years, almost 400 million pounds of plastic while continuing the formulation of resin and 140 million pounds of elastomer within a new group of partici-The company plans to transfer resin synthesis to its McIntosh, Ala., plant. A review of pants, according to a study by Phillip Townsend Associates, Marblehead

alternative sites for the future synthesis of dyestuffs is in progress, according to the The recent decline of the dollar has affected imports and encouraged auto OEM's Ciba-Geigy also said it plans to build a new and Japanese suppliers to increase their commitments to North American manufac-\$90 million pharmaceutical facility at Toms River which will manufacture active ingreturing facilities concentrated around new dients for medications used to treat hypermanufacturing hubs in Kentucky, Ohio, Ten-Approximately 900 workers are currently

nessee, Illinois and southern Canada. "A high degree of loyalty characterizes the auto OEM/supplier relationship in Japan."
according to Robert Ellor a Townsend Associate analyst. It is probable that Japanese auto OEM's will prefer working with suppliers with the same cultural traditions with

whom they have done business for decades. "This preference creates a circle of events which result in investment by Japanese auto part suppliers and resin companies in North

The pressure exerted by Japanese auto companies on their parts and materials suppliers strongly encourages investment in North American facilities. In effect, the auto mitment to invest in upgrading the environOEM says that if you wish to supply in Japan mental protection operations at the plant. and Taiwan you must supply in North Amer-

The 2 million passenger cars and light trucks which could be manufactured an-

"Native" North American auto parts suppliers who successfully participate in the supply circle will be better positioned to serve evolving global auto parts markets, according to the study.

Japanese elastomeric parts fabricators are also establishing manufacturing operations in North America.



mental protection operations at the plant.
These include the \$25 million investment for the extensive wastewater treatment plant upgrade and the toxicity reduction program.

The japanese auto suppliers are likely to introduce new materials technologies (especially in the plant of the plant in you wish to supply in Japan and Taiwan you must supply in North America as well, Townsend Associates says.

The Japanese auto suppliers are likely to introduce new materials technologies (especially with Union Carbide.

# Chemical Marketing Reporter

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Richard J. Sutch, who has been named president of OxyTech Systems, a newly formed 50-50 joint venture of Occidental Chemical Corporation and Eltech Systems Corporation.

**Polysar Gets Approval** 

**For New Latex Venture** 

With Chinese Company

chemical company.

The Chinese government has ap-

proved an agreement between Shanghai

Gao Qiao Petrochemical Corporation

and Polysar Ltd. of Sarnia, Ontario,

Canada, to form a joint venture petro-

agreement for a Canadian petrochemical

company. Formal approval was granted by

the Chinese Ministry of Foreign Economic Relations & Trade. The 50-50 joint venture,

to be known as Shanghai Gao Qiao—Polysar

Company Ltd., will use Polysar technology in

a program to significantly increase produc-

tion capacity of synthetic rubber latexes in

The initial phase will use Polysar technol-

ogy to triple the capacity of Gao Qiao's exist-

ing 1,000-metric-ton latex plant in Shanghai,

Phase two involves the construction of a new

10,000-ton latex plant using Polysar technol-

ogy and the marketing of its output by the joint venture. The third phase will examine other opportunities for Polysar's involvement in the Chinese latex industry, the Cana-

Contracts for phase 1 have been signed and the upgraded capacity is expected to be available for the Chinese market by early

Cyanotech Corporation, Woodinville,

has successfully developed an algal

oils, is believed to be effective in reducing

risk of heart disease and in preventing or

even reversing, formation of atherosclerotic

Several fish oil products containing EPA

However, fish oils containing EPA also

contain other fatty acids with closely similar

chemical structures, complicating the sepa-

ration and purification. According to Cyan-

otech, its algai source contains no closely

related fatty acids, meaning EPA purifica-

Continued on Page 17

y available in the marketplace

Biotechnology Company

Has Microalgae Source

For a Higher Fatty Acid

acid far simpler.

plaques in the arteries.

tion would be much easier.

Polysar says this represents the first such

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# Biotechnology Reform Bill, Sponsored by House Chairman, Is Criticized by Industry Group

islation designed to bring major reforms to biotechnology, Congress should wait to assess the effectiveness of new regulatory procedures devised by the White House, an industry spokesman said last

"The Industrial Biotechnology Association believes no new legislative initiatives are needed." IBA executive director Richard D. Godown told two House Science & Technology subcommittees at the first congressional earing since 1978 on legislation to regulate the biotechnology industry.

Rep. Don Fuqua (D-Fla.), chairman of the House Science & Technology Committee, is sponsoring a bill that would require Environmental Protection Agency or Department of Agriculture to grant approval before geneti-cally engineered organisms could be re-

facturing, or distributed in commerce.

It would also establish statutory authority

for the existing Biotechnology Science Coordinating Committee to promote uniform pro-cedures for evaluating risks, to recommend research priorities, and to develop guidelines governing laboratory and manufacturing

A research program supported jointly by government and industry would be set up to fund basic biological research relevant to biotechnology research.

Similar legislation has been introduced in the Senate by Sen. Dave Durenberger (R-Minn.), chairman of the Environment & Public Works subcommittee on toxic substances. Mr. Godown said a motivating force be-

hind Rep. Fuqua's legislation "seems to be a desire to regulate the technology itself, Continued on Page 43

# LAB Expansion Slated

Monsanto Chemical Company plans to expand capacity, improve the quality and undertake a research program for its linear alkylbenzene (LAB) business. The three-part investment program will focus on MCC's LAB facility at Alvin, Tex. The program's first phase, which is now in the definitive engineering and design stages, will be a 50-million-pound-per-year ex-pansion of the LAB unit. "We believe the additional 50 million pounds will serve the US and Canadian markets well into the 1990s," says Roger F. Sellew, commercial director for detergents.

"A second element of our investment plan will be to implement a major quality improvement program. This improvement project will ensure the production of the highest quality LAB available in the industry and is designed to better meet and ultimately exceed our customers' demands for a quality LAB," Mr. Sellew

Board of directors approval for the ex-

pansion and quality improvement projects will be requested in the near future. The projects have targeted start-up dates in early 1989.

...The third phase of the program will focus its detergent research on the development of technology to produce highly soluble LAB specifically for the rapidly growing liquid detergent market.

"Our efforts are currently in the experimental stages, and we are confident that our research will lead to the commercialization of LAB providing greater flexibility to the detergent manufacturers," Mr.

Investment plans for the LAB facility follow Monsanto's acquisition of Witco Corporation's Carson, Calif., plant last year. The Carson plant has a yearly capacity of 50 million pounds for LAB. It also produces 25 million pounds annually of branched and specialty alkylate for the agricultural emulsifier and oil additives

# **Chemicals Banned** For Export to Syria; War Use is Feared

The US banned the sale of eight chemicals to Syrla last week, citing fears that Syrian built chemical weapons will be given to Iran and escalate the protracted war in the Persian Gulf.

The embargo, which is identical to one imposed two years ago on Iran and Iraq, was extended to Syria after US intelligence discovered that country had the capability to make chemical weapons. Syria has been supporting Iran in the seven-year conflict.

The eight chemicals on the embargo list are potassium flouride, dimethyl methylphosphonate, methyl phosphonyl di-flouride, thiodiglycol, phosphorus oxychlo-ride, dimethylamine hydrochloride, and chloroethanol

The chemicals have widespread commercial applications in US industry, but in certain combinations and strengths can make potent weapons.

A State Department official said that while the embargo was being considered, the Commerce Department determined that no American companies were currently selling the eight chemicals on the list to Syria. The embargo, he sold, would guard against future sales and might also influence other countries to halt exports of the chemicals to Syria.

The ban on chemical exports directly to Iran and Iraq was imposed two years after government officials intercepted a large shipment of chemicals heading from the US to the Persian Gulf reigon.

The State Department spokesman said Iran has not used chemical weapons, "but their continued use by Iraq and the potential for Iranian use is a cause for concern.'

In a related development, President Reagan said Thursday the Administration is ready to intensify negotiations for a global han on chemical weapons at the Geneva talks that have been unable to make progress on the issue since 1968.

The Prersident met with his representative to the talks, Ambassador Donald S. Lowitz, before the ambassador departed for the 1986 round of the discussions at the 40-nation conference on disarmament in Geneva,

5/20/85, pg. 3).
Interferon enhances the body's immune system through activation of natural killer

cells and increased expression of tumor anti-

Separately, scientists at Blogen and Mas-

sachusetts General Hospital have produced a

human protein through genetic engineering

techniques that will be tried against several

types of female reproductive tract cancer.

#### FDA Approves Alpha-Interferon Products ICI and Enka to Swap Of Schering-Plough, Hoffmann-La Roche **Polyester and Polyamide** ment of interferon when they agreed last year not to contest each other's patent rights to the product in the US and Europe (CMR To Rationalize Positions

Imperial Chemical Industries PLC of the UK and Enka, the Dutch fiber maker, have agreed to swap their respective market positions in polyester staple and polyamide filament yarn.

ICI will progressively withdraw from the production of polyester staple fibers at its Wilton, Teesside, plant in favor of increased output there of "Melinar" polyethylene ter-Wash.-based specialty producer of highephthalate (PET) packaging material.

value products from microalgae, says it During ICI's phased withdrawal from the polyester staple fiber business over the next source for eicosapentaenoic acid (EPA) two to three years, output of the material which would make purification of the from its Wilton plant will be marketed by Enka, which has a strong position in the busi-EPA, a C<sub>20</sub> polyunsaturated fatty acid with five double bonds that is found in certain fish

Meanwhile, ICI will market polyamide textile flat yarns manufactured at Enka's Emmen pl. nt in the Netherlands until production of the yarns is completely phased out by the end of the decade.

Enka earlier decided that it would not and some estimates put a value on retail market share in polyamide yarns is "rather sales of EPA as high as \$25 million annually.

\_The agreement with ICI will allow Enka to gradually eliminate the plant's workforce through attrition, avoiding major union problems that would come with forced layoffs. Production there will be phased out in tandem with employment until 1989 or 1990, when the plant is expected to be closed com-

Also, the company says its microalgal EPA product is essentially free of cholesterol Production of polyamide carpet yarn at Emmen will not be affected.

Food & Drug Administration last week approved the commercial use of human alpha interferon produced separately by Schering-Plough Corporation and Hoffmann-La Roche Inc. for the treatment of hairy cell leukemia.

Alpha interferon is the first product of biotechnology to be approved in the US for the treatment of cancer. It has already been commercialized abroad.

While the approved indication — hairy cell leukemia — is relatively rare, this approval confirms our long-held belief, supported by research and clinical findings, that alpha-2 interferon is an effective form of therapy with an important role to play in modern medicine," Robert P. Luciano, chairman and chief executive officer of Schering-

Plough, said last week.

Applications are pending in the US for the use of alpha interferon in the treatment of other cancers, including malignant melanoma, and for the prevention of the common cold.

By 1990, it is estimated that worldwide sales of alpha interferon could reach \$350

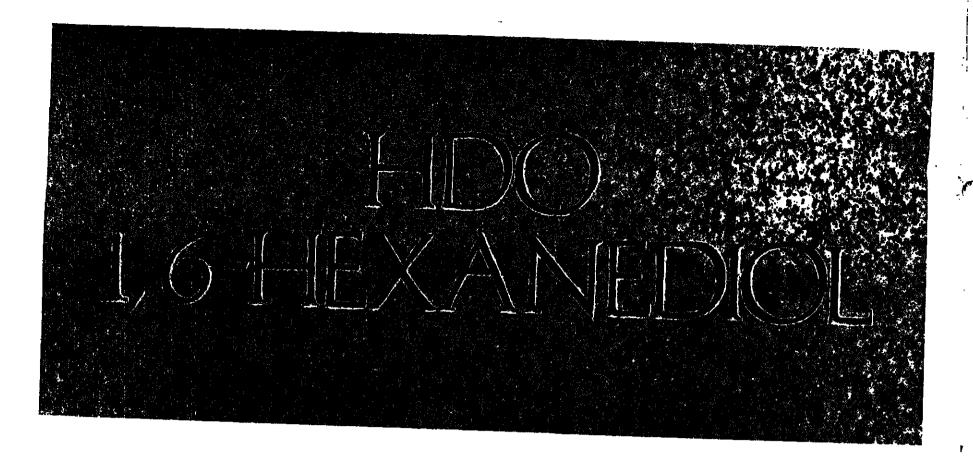
Schering-Plough acquired exclusive marketing rights to alpha interferon in 1979 from Biogen NV, which holds both US and European patents to the drug. Schering-Plough will market alpha interferon under the trade name "Intron" A.

Roche developed its product in collaboration with Genentech Inc., and will market the drug under the name "Roferon"-A. Rocke and Schering-Plough avoided a po-tentially long and costly legal battle that

ALPHA-2 INTERFERON CRYSTAL. Photomitentially long and costly legal battle that nant interferon alfa-25 manufactured by mana could have retarded commercial develop- of recombinant DNA technology.

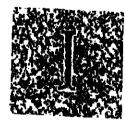
June 9, 1988. CHEMICAL MARKING INGRESOFTER 6.

CHEMICAL MARKETING REPORTER

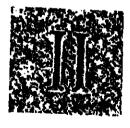


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CHEMICAL MARKETING REPORTER

June 9, 1986







CMA INSTALLS NEW SLATE: Chemical Manufacturers Association at its annual meeting in White Sulphur Springs, W. Va. has elected Worley H. Clark, Jr. chairman of the board and Robert C. Forney vice-chairman of the organization. Mr. Clark, chairman of the board and chief executive officer of Natco Chemical Company, successed George J. Sella, chairman of the board, president and chief executive officer of American Cyanamid Company. Mr. Forney, executive vice-president of E.I. du Pont de Nemours & Co., replaces Harold A. Sorgenti, president of Arco Chemical Company, who was elected chairman of the CMA executive committee.

# **Sulfite Labeling Standards Are Urged by Food Scientists**

The vast majority of the US population enjoys the benefits sulfites contribute to the food supply without risk, but proposed labeling standards should be adopted to protect some highly-sensitive asthmatics, who may suffer potentially fatal allergic reactions if exposed to these chemical preservatives, food scientists said last week. Six sulfiting agents — sulfur dioxide, sodium and potassium metabisulfite, sodium

and potassium bisulfite, and sodium sulfite - have been widely used in foods for generations. However, their use has come under fire

recently for causing allergic reactions, in-

cluding as many as 19 possible fatalities, so strengthened regulation has been called for. "Labeling appears to be the best regulatory approach" according to a scientific status summary report released by a food safety and nutrition panel of the Institute of Food Technologists, an organization representing some 22,000 food scientists

Food & Drug Administration last year proposed two regulations to deal with sulfites. One would ban the use of sulfites on fresh fruits and vegetables; the other would require warning labels on foods containing more than 10 parts per million of sulfite.

The report, prepared by Dr. Steve L. Taylor and Dr. Robert K. Bush of the University of Wisconsin, at the direction of the IFT panel, is intended to offer guidance to FDA and other agencies on how the use of sulfites should be regulated.

The researchers concluded that sulfites can cause adverse reactions in about 20 percent of steroid-dependent asthmatics, equat-ing to about 180,000 persons nationwide. Based on earlier research, FDA has estimated that between 500,000 and one million

people may run the risk of suifite reaction.

The IFT scientists noted that while further tests are needed to decermine what types of sulfites and sulfited foods trigger reactions,

Continued on Page 24

# Orthoxylene Recovery Seen Lasting Through '88, Maybe '90; Overcapacity Persists, However

nual decline in production, the orthoxylene market last year began what one industry observer terms a "mini-recovery" which is expected to continue at least through 1988 and possibly through

Whereas production of the isomer totaled 1.08 billion pounds in 1979, a dramatic drop in exports, increased imports and greatly reduced demand for phthalic anhydride brought about a decline in orthoxylene production to 696.5 million pounds in 1984.

Last year, output rose to 698.1 million oounds. An observer estimates in 1986 the total will be about 700 million pounds. For the coming years, 1.5 percent growth is foreeast through 1988 and possibly the rest of the decade. At such a rate, output in 1990 would total 743 million pounds, the industry's highest since 1983 when 773.4 million pounds of product were produced

Despite relatively recent plant closures, capacity utilization would average a modest 77 percent this year should output total the

Polypropylene Royalties

**Paid to Phillips Petroleum** 

United States.

cense agreements.

Following six years of 7 percent anual decline in production, the orthoxyene market last year began what one

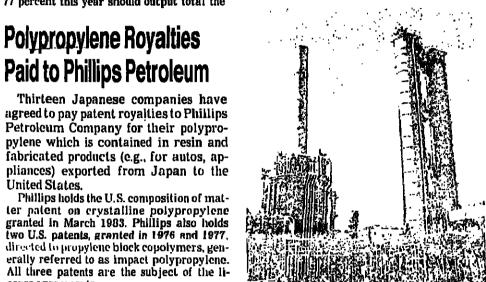
700 million pounds forecast.

When Shell Chemical Company exited the
business in late 1984, it removed 125 million pounds of annual production capability from the market, while the departure of E.I. du Pont de Nemours & Co., Inc. last Fall reduced industry capacity another 25 million pounds. At present, industry capacity totals

905 million pounds per year. To cope with the overcapacity, producers periodically cease production according to market conditions and restart when demand dictates. It is significantly less costly to shut down and bring back up an orthoxylene unit over the course of a few weeks than it would be to do so with other types of units.

Also, when the orthoxylene market is glutted and prices are weak, as has often been the case the past few years, producers with the equipment to do so isomerize orthoxylene to paraxylene to capitalize on a hoalthy paraxylene market.

Most of the loss of business which has created the overcapacity is blamed on the dras Continued on Page 13



ber of orthoxylene plants has reduced capacity in the US to 905 million pounds per year. This was once a Shell Chemical facility. Shell exited the business in late 1984.

# nual imports of polypropylene from the com-panies, collectively, are estimated at 110 Olin Agrees to \$15 MM Compensation Fund To Settle Litigation Over DDT Exposure

Olin Corporation has agreed to establish a \$15 million compensation fund to settle claims of plaintiffs in Northern Alabama, who say they were injured by discharges of DDT pesticide from Olin's former manufacturing plant at the Redstone Arsenal in Alabama.

The royalty payments are based on a rate of

I cent per pound, adjusted for inflation. An-

of Federal District Court Judge U.W. Clemon. Hearings on the proposed class-ac-tion settlement are scheduled to be held in the

Olin said last week that while there is no evidence that DDT discharged from the Redstone Arsenal plant injured anyone, the co-many wanted to "put the costs and disruption of the DDT litigation behind it."

Under the terms of the proposed settle-ment, the court will appoint an administrator to establish procedures for making claims and determining compensation for personal injury, property damage or loss of income.

Members of the class will consist of plainliffs in the litigation and current and former residents of six countles in Northern Ala-

Since 1983, approximately 9,700 plaintiffs sonal injury and property damage. Olin says the court previously dismissed many of these claims on various grounds, including the fact that they exceeded the statute of limitation. Olin says the court also dismissed various claim theories, including intentional infliction of emotional distress, outrage, assault, battery and trespass.

Olin agreed in 1982 to clean up the DDT completed by early 1988.

# Dioxin 'Dangerous' at Oxy Site

Unsafe levels of highly toxic dioxin duction stopped and disposed of in a "se-have been discovered at an Occidental ours landfill." Chemical Corporation site in Niagara Falls, NY, Environmental Protection Agency said last week.

Vancouver plant as a separate entity if workers there would agree to a reduced wage James R. Marshall, an EPA

Alcoa closed the plant after the Vancouver workers joined other union locals in a vote to go out on strike against the company following the expiration of labor contracts on May

According to an Alcoa spokesman, the company told the Vancouver workers that their vote was "tantamount to a shutdown" and offered a 60-day extension of the previous contract to allow time for negotiating a separate contract.

Alcoa Closing Down

Its Vancouver Smelter

pacity of 115,000 metric tons.

to the restructuring.

Last month, Ale

Aluminum Company of America has

permanently closed its Vancouver,

British Columbia, aluminum smelter,

laying off 450 striking production work-

ers there. The plant had an annual ca-

which is in the US, now stands at 1.1 million

tons, compared to over 1.4 million tons prior

Alcoa said the Vancouver closure would be

accounted for as part of a \$175 million

charge in the fourth quarter of 1985 relating

to a company restructuring program.

Alcoa's wholly-owned capacity, most of

However, the agency sald the plant site. to the public health" because it is not accessible to the public.

spokesman, said direct human exposure to the chemical was "extremely unlikely" because it is buried below the ground and covered with asphalt.

Occidental Chemical's Hooker operation manufactured pesticides at the Niagara Falls site from 1949 to 1972. A company spokesman says the facility was shut down and dispensive shortly offer. down and dismantled shortly after pro-

site, and as high as 18,600 parts per billion underground. The Federal Centers for Disease Control says dioxin concentrations of one part per billion threaten health if there is direct and frequent expo-

New York State environmental officials says the chemical will have to be removed to avoid offsite migration, inscluding possible contamination of the Nigara raver. EPA said the levels of dioxin detected

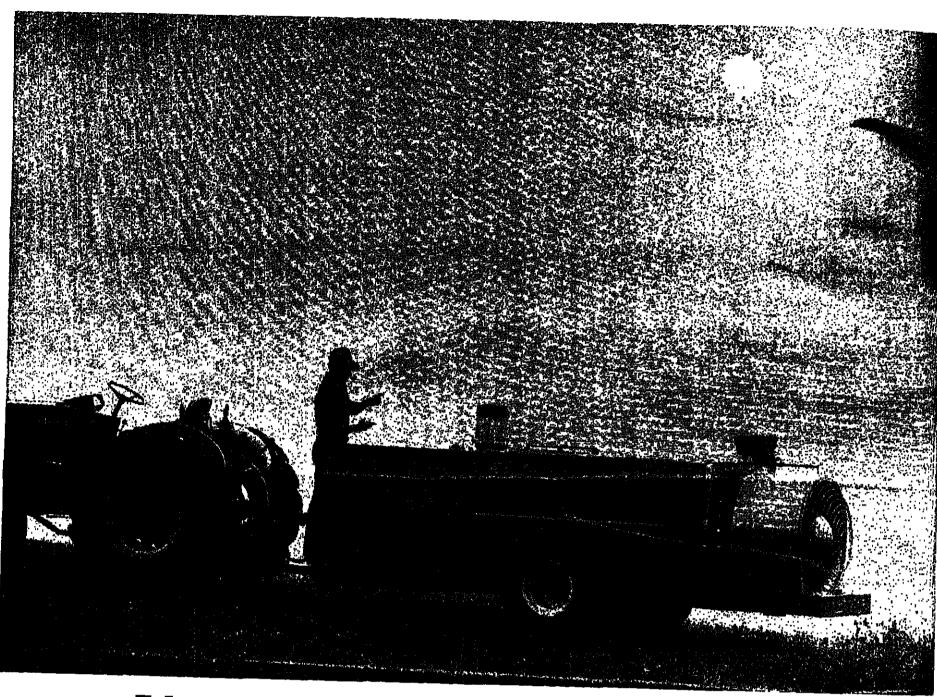
EPA found concentrations of dioxin of

one part per billion on the surface at the

at the Occidental plant site exceed the concentrations found in soll samples taken from Love Capal and three other area sites:

residue near the former Alabama plant. which was closed in 1971. Olin says the cleanup is under way and is expected to be .

June 9, 1986 CHEMICAL MARKETING REPORTER



# It's no surprise how many industries start the day with Ashland's maleic anhydride.

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tively priced, in molten or briquette form, by rail car or truck, anywhere in the U.S. That means a lot, to more new customers every year.

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CHEMICAL MARKETING REPORTER



Unit sales remained high, Degussa said, but the volume in Deutsche marks was reduced by falling prices of gold and silver, together with the weakening of the dollar. Some 68 percent of the company's turnover was accounted for by foreign business, as compared with 71 percent the previous year.

Degussa AG, the parent company, had 1985-1986 sales of \$1.94 billion, down 7 per-cent from the previous year. Disregarding precious metals, revenues were up 1 percent

foreign trade and a downturn in precious metals prices led to a decrease of 12 percent in total revenues. In chemicals, an increase of sales of about 2 percent would have been larger were it not for price decreases, which reflected lower prices of raw material, plus the lower value of the dollar in overseas mar-

Degussa's pharmaceuticals sector achieved a slight increase in revenues in the first half of the year, when lower sales abroad were compensated by higher domes-

Among the company's larger subsidiaries, Asta-Werke AG, Bielefeld, and Degussa Antwerpen NV, of Belgium, recorded particularly good results, the company said.

In the US, Degussa Corporation had Improved results after a poor showing the pre-

# Perstorp of Sweden Boosts Sales 12 Percent in 8 Months

Perstorp AB, the big diversified producer of chemicals and biotechnology products based in Sweden, raised its international sales 12 percent in the fiscal eight months ended April 30 to the equivalent of \$365 million from \$321 million a year ago. Both numbers have been converted at the present exchange rate on the Swedish kroner. In November, Perstorp added to its extensive product line the business of La

Bakelite SA, in France, one of the largest manufacturers of resins and phenolic molding compounds in Europe.

The French company is expected to add upward of \$35 million annually to Perstorp's consoldiated revenues. Business trends for percent and operating profit rose apthe acquired unit have been favorable, Perproximately 7 percent from levels of the Bifok AB, which is a part of Perstorp Bio-

first period a year ago.
Publicker's total sales in the first quarter declined to \$4,106,000 from \$13,112,000 a year ago, as a result of the shutdown during tec (a biotechnology operation), recently acquired two companies — Servomed AB and Servochem AB, both of Stockholm, as well as a new subsidiary in the US, Servomed Inc. The activities of the two Swedish companies are concentrated in analytical instruments for distillation, including brewery op-

erations, and for use in health care and other packaging business.
In March, Publicker sold its idle facility medical outlets. The acquisitions strengthen Perstorp's participation in the food and anifor industrial alcohol in Philadelphia for \$3 million and used the proceeds to retire semal feed industries, the company noted. cured debt under its domestic term loan Two new licensing agreements for the production of formalin (37 percent solution of formaldehyde) have been signed with cus-

composite building materials.

from \$30.1 million.

ing and wall partitions, strengthening Per-

storp's activities in the field of plastic and

Also. Pernovo Incorporated in the US ac-

quired 67 percent of the shares of Guided

Wave, Inc. in Sacramento, Calif., a company that works with sophisticated analytical

techniques for instruments and process con-

Perstorp's operating income in the first eight months increased to \$43.5 million from

\$39.8 million in the same period a year ago.

Income after net depreciation and financial

million a year ago, while income before allo-cations and taxes totaled \$31.4 million, up

items amounted to \$33 million, up from \$30

Publicker said that it is now actively pursuing the potential sale of its remaining idle facilities and seeking a purchaser for the UK beverage division. Publicker anticipates that the sale of these facilities will generate subtomers in West Germany, and a license for the production of industrial grade laminate has been sold to a company based in India. In another transaction, Perstorp Chemitec stantial additional working capital for use in has acquired Gunfred-Gruppen AB's busithe company's acquisition program. ness activities in the field of seamless floor-

Publicker's results in the first period show a net loss of \$745,000, as compared with a loss of \$1,256,000 in the same period a year ago. The loss included \$375,000 in a management contract settlement and \$552,000 for closure of the contract packaging division.

Karl A. Stewart, who has been elected secretary of Tenneco Inc. Mr. Stewart joined Tenneco in 1977, after service with Securities & Exchange

**Publicker's Sales Strong** 

**In Carbon Dioxide Area** 

**Following Restructuring** 

Publicker Industries Inc., Greenwich,

Conn., says that its carbon dioxide busi-

ness continued strong into the first per-

iod of 1986, as sales volume increased 6

1985 of operations related to industrial

ethanol, fuel-grade alcohol, automotive

products household cleaning products, bulk

liquid storage and the company's contract

# Chesebrough-Pond's Puts **Hospital Unit on Block**

Chesebrough-Pond's, Inc. is offering to sell its Hospital products division and will use the proceeds to strengthen its basic businesses in consumer products and chemicals, said Ralph E. Ward, chairman of the company and chief executive officer.

Shearson, Lehman Brothers, Inc., New York, is acting as financial advisor for the transaction. A year ago, Chesebrough, a di-versified producer, of cosmetics, tolletries, foods, shoes and textiles, made a major diversification by acquiring Stauffer Chemical

T.R. Larsen, vice-president of manufac-turing, who joined Chesebrough in 1970 and has served as head of manufacturing for the hospital products division since 1974, has been named president and general manager of the division, succeeding Robert E. Karlson, who is taking a medical leave of absence.

The division to be sold had sales of \$84.5 nillion last year and will tally its revenues in the \$100 million range in 1986, Mr. Ward said.

The division's sales growth has exceeded 16 percent per year compounded over the last five years,



Michael J. Mudler, who has been appointed vice-president of finance for the vinyl division of B.F. Goodrich Company.

# Diamond Shamrock Sells Stake in UK Subsidiary

Diamond Shamrock Corporation has sold its 75 percent interest in Lankro Chemicals Ltd., a UK maker of specialty chemicals, to Lankro management for an undisclosed sum.

The remaining 25 percent interest had been distributed or put in trust for Lankro

employees in 1983. Lankro, based in Eccles, with plants in the UK, Belgium and West Germany, makes polymer additives, polyurethanes, surfactants and radiation curing chemicals. Sales last year were approximately \$100 million.

# Chemical Financial Briefs

McLean, Va., has acquired for an undis-closed amount of stock and cash a controlling interest in Synergistic Technologies Inc., a privately held company headquartered in Richmond, Va., which develops and applies technolog surface modification of metals,

Amoco Corporation and Analog Devices, Inc. have filed an SEC registration statement for the sale of Amoco's 16 percent interest in Analog's common stock. The move is in line with Amoco's policy to concentrate on its core businesses, says Richard M. Morrow, chair-

Revion Group, inc., has agreed to sell. Technicon Corporation to a consortium of investors, including Cooper Development.

DuPont Ventures Incorporated, Company, for \$250 million in cash, subject to adjustments, and \$50 million principal amount of preferred stock.

> Forest Laboratories, Inc. has contracted with Key Pharmaceuticals, Inc. to acquire rights to the latter's "Aerobid" metered aerosol corticosteroid used in the treatment of asthma. Introduced in december 1984, the product is currently selling at the annual rate of \$2.4 million. The agreement is subject to consummation of the pending Schering-Plough/Key

Kidder, Peabody & Co., as sole man-ager of the underwriting group, is offering to the public \$125 million of Tyco Labora. Tories Inc. 6.75 percent convertible subor dinaled depentures due May 15, 2006.

vious year, but in Brazil, the currency reform had a negative impact on the results of Degussa SA.

Accruals of fixed assets at Degussa AG totaled about \$48 million during the year, in line with a scheduled increase over the previous year's \$44 million.

Degussa noted that it has reached agreement with Phillips Petroleum Company on the acquisition of Phillips carbon black plants. In the metals sector, Degussa expects that its position in the US will be strengthened by the acquisition of Metz Metallurgical Corporation, South Plainfield, N.J.

Meanwhile, control of Chemische Fabrik Grunau GmbH, of Illertissen, West Germany, passed to Henkel KGaA, Dusseldorf, as of

# **IMC Write-Offs Will Produce Loss** Of \$4-\$6 Per Share

International Minerals & Chemicals Corporation is estimating that its final results for fiscal 1986, after write-offs, dispositions and adjustments, will be a net loss in the range of \$4.30 to \$6 per

IMC's earnings from operations before any of the special charges are now estimated to be slightly below the previous forecast of 50 cents per common share.

To boost earnings in the next fiscal year. IMC is preparing plans for commercialization of porcine growth products developed through blotechnology, George D. Kennedy, president and chief executive officer of IMC,

In the near future, Mr. Kennedy added, there are likely to be two other new product introductions that will add to the growth of

the animal products group.

The acquisition earlier this year of Mallinckrodt Inc. from Avon Products Corporation was cited by Mr. Kennedy as a major step in the company's long-term strategic plan for diversified growth. Mallinckrodt produces fine chemicals and intermediates for pharmaceuticals and personal-care prod-

In the fourth quarter of the present fiscal year, IMC is continuing to review several of its under-performing assets for possible write-down or write-off, and may also sell, or reach a decision to sell certain assets, including its gas and oil unit and all or part of its industrial products segment.

IMC also expects to complete the previously announced charge to earnings for the purchase price premium allocated to Mailinckrodt's inventories.

# **Enzon and Cyanamid Set** A Joint Veterinary Project

Enzon, Inc., South Plainfield, N.J., and American Cyanamid Company, Wayne, N.J., have reached an agreement in principle to develop and market specific vet-

erinary products.

The two companies said they have completed successful first-round testing of a bio-

logically active polypeptide derivative utilizing Enzon's "PEG" process.

This Enzon technology is said to provide protection to the usually fragile polypeptides against normal physiological degradation processes, thus extending their circulating logical activity.

Enzon and Cyanamid said they intend to extend the use of Enzon's technology initially to a broad range of veterinary pharmaceutl

Enzon, Inc. is a pharmaceutical company specializing in enzyme therapy to treat a wide range of life-threatening diseases, offering specialized enzymes for therapeutics, research and industrial applications. American Cyanamid produces chemicals.

pharmaceuticals, biotechnology producte and personal-care products

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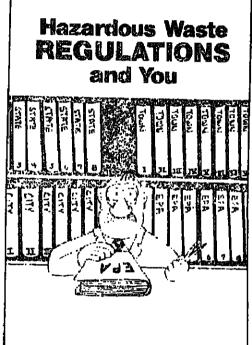
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# OILS, FATS & WAXES

# Reichhold and Union Camp Follow TOFA Price Reduction

Reichhold Chemicals, Inc. and Union graph Corporation last week cut their rices on tall oil fatty acids (TOFA), following other producers who had made hanges the previous week. The lower Camp Corporation last week cut their prices on tall oil fatty acids (TOFA), following other producers who had made changes the previous week. The lower pricing is attributed principally to com-petition from fatty acids based on vegetable oils and tallow.

Reichhold says it is decreasing its TOFA pricing by 3 cents to 4 cents per pound, effective June 1. Representative changes are "Aconew 500" which drops from 29 cents to 26 cents per pound, and "Acofor" which falls from 27 1/2 cents to 23 1/2 cents per pound. On the other hand, Reichhold says it is increasing prices on its rosin size products by 10

percent, effective June 1.

Union Camp says it is reducing its TOFA pricing by 5 cents per pound, effective June 2.

A sample change is "Unitol ACD-SP" which

drops from 32 cents to 27 cents per pound.
In addition, Union Camp says it is cutting its distilled tall oil (DTO) pricing by 2 cents per pound, and a sample change is "Unitol DT-40" which falls from 23 cents to 21 cents per pound. The company says it is increasing its tall oil rosin pricing by 1 cents per pound, and a sample change is "Unitol NCY-grade which rises from 22 cents to 23 cents per

The previous week, Arizona Chemical Company cut its TOFA prices by 1 cents to 4 cents per pound, and Hercules Incorporated dropped its TOFA prices by 2 cents to 4 cents per pound.
A spokesman at Reichhold says his com-

pany cannot afford to lose any market share to competitors, and a Union Camp spokesman says his company's "adjustments reflect current market conditions."

TOFA producers are "very much at the mercy of soybean oil," says an industry source. The soybean oil price has been holding in the 17 cents to 18 cents per pound range for the past several weeks, while a year ago it was approximately 32 cents per pound. Present TOFA list prices show a similar relationship to those of a year ago.

Fractionators acknowledge that a good deal of business has gone to soybean oil based fatty acids over the past year, as TOFA prices were slow to respond to the fall in vegetable oil pricing. A large volume of business in the coatings industry switched over, and a considerable portion of the dimer acids market switched as well, sources say,

With TOFA demand yet to pick up signifi cantiy in 1986, stocks of 2 percent and over rosin content material have been built up from 23.588 million pounds at the first of the

#### FRIDAY SPOT PRICES

MARKET CLOSE/JUNE 6, 1986 CRUDE VEGETABLE OILS

REFD. VEGETABLE OILS

FATS & GREASES irease, white, choice, tanks, divd., NY..ib. irease, yellow maximum 10%, ffa tanks .ib. ard, loose, bulk tanks, divd., Chicago ..ib.

tion, have been more stable during the per-

are attributed by industry sources to a slight downturn in rosin inventory levels, modest demand, and, for rosin size, an upturn in the

paper industry.

Correction: due to typographical errors, the amount of Arizona Chemical Company's price changes on distilled tall oil (DTO) and tall oil rosin (TOR) were incorrectly reported

#### **PRICES TRENDLINES**

**WEEK ENDING JUNE 6, 1986** 

#### **CHANGES/UP**

Coconut oll, NY, 1c. per lb. Cottonssed, 41% bulk, Memphis, \$5 per ton Soybean, 44% bulk, Decatur, \$3.50 per ton

#### CHANGES/DOWN

Cottonseed oil, Valley, 1/2c. per lb.
Gresse, white, choice, tanks, divd., NY, 1/4c. per lb.
Gresse, yellow maximum 10%, (fa tanks, 1/2c. per lb.
Soybean oil, Decatur, 20c. per lb.
Tallow, inedible, fancy guar., tanks, divd. NY, 1/2c.

#### OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Chemical Prices Start on Page 38.			
une 6, 1986	7		
lay 9 1986 83.91	ı		
lav 30, 1966 82,56			
une 6. 1986 83.48	3		

Arizona's DTO product "Accintol D30LR" drops 1 cent per pound, from 24 cent to 23 cent per pound, effective June 1. Arizona's hot and canned TOR will increase by 1 cent per pound, effective July 1.

#### **VEGETABLE OILS**

CASTOR OIL - The price is quoted at 31 ½ c. per pound, and has been holding steady the past few weeks. The market is said to be very quiet, as stock levels are high both in the US and in Brazil.

An industry source says that, though the Brazilian crop appears to be a bit smaller than expected, consumption has lagged as well. While the Brazilians may make an ef-fort to raise prices slightly, the heavy stocks should work against such a move, says the

India, which last year put competitive pressure on the Brazilians with a large crop, has not had a good crop this year, and report

edly is not even offering material.

PALM OIL — The price of this oil has been fairly stable the past several weeks following considerable erosion earlier in the year. Heavy Malaysian exports have cut into stocks at a time when production is declining, balance, sources say.

India has been importing large quantities of oil since dropping trade restrictions, and the Soviet Union has been active in the market as well, says a trader. Malaysian stock levels that were nearly 1 million tons in the first quarter are said to have come down to approximately 800,000 tons.

The Malaysian Agricultural Attache's pre-liminary estimate for Malaysian production in April is 326,000 tons, virtually unchanged from March's 325,000 tons. Because produc

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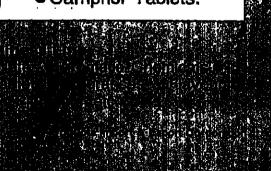
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#### OILS, FATS & WAXES

tion in the second quarter traditionally has been higher than the first quarter, a source says these figures likely reflect a decline in rainfall and the weevil stress syndrome following the heavy production of the past sev-

#### **FATS & GREASES**

TALLOW - Pricing in this market has continued to weaken, and the market "still doesn't look too strong," says an industry source. It is said that there have been no large export orders recently, and that domestic interest has been on the slow side.

Last week, Egypt was expected to take 30,000 tons of tallow. However, it took 20,000 tons of coconut oil instead. This leads an industry source to speculate that, since coconut oll is blended with tallow for soap production, the Egyptians must have a sufficient amount of tallow already on hand for their needs.

Palm stearine continues to provide strong competition for tallow, particularly in the Far East export markets, the source says.

#### WAXES

CARNAUBA WAX — The price of No. 3 wax is quoted between \$1.35 and \$1.45 per pound, and the price of No. 1 yellow wax is stock up on the material.

quoted between \$1.90 and \$2.05 per pound both f.o.b. New York in bags. In carloads, the price is quoted at 80c. per pound for No. 1 grade and \$1.25 per pound for No. 1 grade.

Pricing of carnauba wax is "uniform for the moment," says one US buyer, after it firmed up in the first quarter. Although another rise in prices from Brazilian sellers is not ruled out, he says, "we have good-sized stocks," and, at the present time, "there are more than several people willing to supply it," at stable price levels.

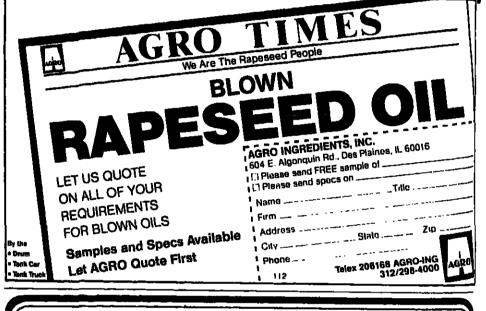
#### MISCELLANEOUS

COCOA BUTTER — The price is quoted between \$1.90 and \$1.95 per pound, and continues on a downward trend. There is "30 much supply of butter available, and demand is rather passive," says a trader.

It is said that there is a good likelihood that Ivory Coast production will exceed last year's large figure, says the source. Overall world production is seen as high this year, and growing over the long term as more trees are planted.

Price increases on candy and chocolate have cut into demand for these finished products, and this has contributed to lower cocoa butter consumption, says the source.

"Finished products demand is not strong." he says, and the great availability of cocoa butter gives producers little incentive to



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# **AROMATIC ORGANICS**

# Orthoxylene Recovery Continued from Page 7

pounds and represented 51 percent of output. In 1985, exports shrunk to 75.4 million pounds and accounted for 10.8 percent of industry output.

Imports on the other hand grew rapidly. In 1981, the first year orthoxylene imports were tallied independently by International Trade Commission, foreign shipments into the US totaled 23.1 million pounds. Last year, imports increased to 15 percent of domestic production, totaling 108.8 million pounds.

Observers cite two reasons for the dramatic swing in the US orthoxylene industry's balance of trade, from net exporter to net importer: additional capacity worldwide and a fortified dollar.

"The US lost most of its exports, save for a small volume to South America," a producer says. "Russia is a major exporter interested in currency, not price."

"A stronger dollar," adds another producer, "gave producers overseas an advantage."
The emergence of the Soviets onto the

scene in late 1983 endangered US orthoxylene producers' major export market, Europe. In their hunt for currency, the Soviets have also placed product in the US which has not only reduced domestic demand for US product, but has also weakened pricing.

Domestically-produced orthoxylene for the merchant market is used exclusively for the production of phthalic anhydride. Demand from this sector has also declined substantially the past few years.

Phthalic anhydride production totaled 1.04 billion pounds in 1979, dropping by 20 percent to 835.7 last year. Compounding this loss of business was the conversion by a phthalic anhydride producer, Koppers Company, Inc., of its reactor capacity from orthoxylene to naphthalene feedstock in 1985.

LOGICAL SWITCH FOR KOPPERS

The switch was a logical one for Koppers, the leading producer of coaltar naphthalene in the US, but for orthoxylene producers the shift translates into a loss of about 75 million pounds of demand a year.

While overcapacity and inexpensive imports have taken their toll on prices, a producer says additional price pressure has resulted from the competitiveness of the plasticizer business, the major outlet for phthalic anhydride accounting for more than half of demand.

"Orthoxylene has taken the brunt of the competitiveness of the plasticizer business," an erthoxylene producer says. "Orthoxylene producers have had to absorb the cost cut-

The orthoxylene producer claims this is changing, however, noting that producers of plasticizers "are no longer trying to increase share at the sacrifice of margins.'

Further brightening prospects for improved profits are lower crude oil prices which in turn encourages increased con-sumption. Increased housing and automotive sales bolster demand for phthalic anhydride.

Although no restoration to the former balance of trade is forecast, exports through the first quarter were running 10 percent ahead of last year's pace. Through March, exports totaled 26.4 million pounds

Imports during the first quarter totaled 72 oillion pounds, up 56 percent from the same period a year earlier.

Contract prices for orthoxylene are reported between 12.5 cents and 14.5 cents per pound while spot market material is quoted at 12.5 cents per pound.

BHT — Producers report selling prices of approximately \$1.25 per pound, and say that pricing has been fairly flat this quarter.

The sents an increase of approximately 7 percent over the current effective market price, Neville-Synthese Organics, Inc. has been

"struggling to recover some lost accounts" this year as a result of the company's takeover of the Oll City, Pa., unit from Koppers Company at the first of the year. Uniroyal Chemical Company says that its

volume has picked up in the short term," per pound, effective July 1. and that Avery, Inc.'s purchase of Uniroyal

tically diminished export market. In 1980, exports totaled 484.8 million consummated by June 30, will have "no real consummated"

impact on (company) policy."

Producers have observed a decline in the effect of imports this year, and attribute this to the weakening of the US dollar. The level of imports is said to be down, and the undercutting of domestic pricing is said to be less prevalent

BTX — Lower crude oil and gasoline prices have applied downward pressure to the benzene and toluene markets, industry sources note.

Spot benzene is quoted between 82c. and 86c. per gallon. There is said to be little activity in the market, as buyers hold off in antici-

#### PRICES TRENDLINES

**WEEK ENDING JUNE 6, 1986** 

CHANGES/UP

CHANGES/DOWN

#### **AROMATICS INDEX**

The Aromatic Organics Index reflects the prices of 14 representative materials In this sector and the quantity of each produced in 1985.

P. OCESTOO ( . O D O .	- 1	ı
June 6, 1986 167	7.84	١
June 6, 1986	7.84	I
May 9, 1986 16	7.84	١
June 7, 1985 16	7.84	I
		ı

Chemical Prices Start on Page 32.

pation of lower prices. At this point, says one trader, a seller "would have to offer a buyer a real incentive" to gain his interest.

Spot toluene is quoted between 64c. and 66c. per gallon. Sources report that Shell Chemical Company has said it will pay no more than 62c. per gallon.

It is said that less than expected gasoline consumption over the Memorial Day weekend and high refinery operating rates have contributed to the downward pressure on

The xylene market is reportedly more stable and the price is quoted at 80c. per gallon. Over the past several weeks, industry ources have said that material has been difficult to obtain. "Some people have given up looking," says one observer, though another believes that material is beginning to be-

BENZYL CHLORIDE - A Velsicol Corporation spokesman says that the completion of the sale of its benzyl chloride unit in Chattannooga, Tenn. to an unnamed chemical company "is taking a little bit longer than earlier estimated." In early May, the company said it expected the deal to be completed within 30 days.

The Velsicol spokesman says the company is hopeful that the sale will be completed by mid-Summer. The transaction is part of the restructuring of Farley Industries, which purchased Velsicol's former parent company. Northwest Industries, Inc., which involves the sale of Northwest's specialty chemicals division, including the benzyl chlo-

DIHYDROXYNAPTHALENE -- American Hoechst Corporation says it will increase the price of 2,3-dihydroxynaphthalene-6-sulfonic acid sodium salt. The change, effecti July 1, will bring the price up to \$8.75 per pound, f.o.b. American Hoechst warehouses.

According to the company, the move repand is in response to higher costs for im-ported raw materials. The chemical is said to be used primarily in the reprographics industry as a coating for sensitized papers.

American Hoechst also says it will raise

the price of beta hydroxynapthole acid by 5c.

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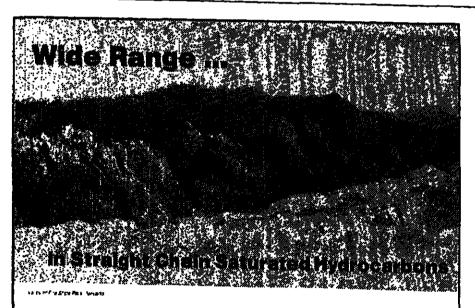
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#### **AROMATICS**

oound for truckload quantities, and \$2.35 per pound for less-than-truckload orders. Prices are f.o.b. warehouse or US shipping point, duty paid. Hoechst attributes the price increase to increased costs for imported material caused by the weaker dollar.

MDI — Producers say it appears likely that half of the half of the 8c.-per-pound industry-wide price increase will be achieved. Though they say that demand is good and the market is tight, they acknowledge that competitive pressures have been strong.

"Essentially, there was some activity going on below (the level to which the price had been increased), and we chose not to have our customers penalized." one produces account.

customers penalized," one producer says.

One producer says he is hopeful that the shifting exchange rate will enable the full 8c. to go through by year's end. It is observed that imports accounted for approximately 20 percent of the US market last year.

PHENOL - Dow Chemical USA says it is increasing its phenol price by 3c. per pound, effective July 1. All other terms and conditions remain the same

ions remain the same.

STYRENE — Amoco Chemicals says it is initiating a 1c. per pound temporary voluntary allowance (TVA) on styrene monomer. The price change, effective June 1, brings Amoco's effective price to 20c. per pound.

According to a company spokesman, the move reflects competitive market conditions. It is noted that the TVA can be removed upon seven days' notice, and it is expected that the price "will probably go as benzene

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# CHEMICAL PROFILE

resin, g.p. grade, bulk, frt. alld.; low, 10c. per pound same basis. Current: 31c. per pound, same basis; 30c. per pound, plpe grade, bulk, frt alld.

Rigid pipe & tubing, including molded fittings, 43 percent; flooring, textile and other calendering uses, 10 percent; siding and accessories, 7.5 percent; coatings and paste processes, 6.5 percent; wire and cable, 6 percent; film and sheet, 3.5 percent; other extrusions, 8 percent; exports, 4.5 percent; bottles, 3 percent; other molding uses, 1.5 percent; phonograph records, 0.5 percent; all other, 6

#### STRENGTH

After a slow start, the pipe market, spurred on by a strong housing market, is consuming large quantities of resin. Vinyl siding is performing very well in the home rehabilitation market. Demand in this market was up 27 percent in the first quarter. A tight vinyl chloride monomer market has pinched PVC availability, prompting producers to launch a 2c. price increase in June.

#### **WEAKNESS**

Imports of PVC resin last year (400-million pounds) and finished goods (over-billion pounds) have cut deeply into domestic producers markets, especially fabricated goods like footwear, luggage, and handbags. Despite the June price increase, sharp overcapacity depresses pricing and cuts deeply into industry

#### **OUTLOOK**

PVC is beginning to make important inroads into the large diameter pipe market (municipal waster and sewer pipe). Vinyl siding is also expected to gain more acceptance in the new housing market, as are vinyl window frames. Fabricated imports will continue to take a bite out of many other vinyl applicaions. Total growth for the market is pegged at 3 percent a year.

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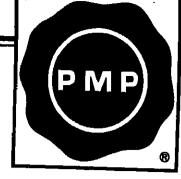
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June 9, 1986 4511 ....

# **ALIPHATIC ORGANICS**

# Ethylene Producers Seeking Higher Prices for June, July

Ethylene producers hope to end a five-month period of price erosion with an-nouncements for higher tabs this month and further increases in July. Sellers are one analyst, "there will be a lot more preasking 15 to 16 cents per pound for June and will attempt to add at least a penny

to that for third quarter deliveries.

Prices during May averaged 141/2 cents per pound, a 31/2 cent per pound slide from early January transactio

While suppliers enjoyed a period of profitability early in the year, they see little or no money being made right now as prices have dropped and feed costs have made a moderate comeback since April. While ethylene suppliers admit that they are covering cash costs, they assert that, overall, the product is

losing money.
"Producers are looking at the full cost of production," says one supplier who adds "a few folks who are cracking ethane are making about ½ cent per pound, but everyone else has been losing money in the second

Notwithstanding the general improve-ment in the ethylene business since last year producers see themselves slipping back into the red. "We were losing a lot more money last year but ethylene is still not making a profit," according to the producer who points out, "the question is whether producers have lost enough to make an attempt to improve

Jack Doerr, of IPC Consultants, the Houston-based market research firm, bas tracked the decline in profitability since the beginning of the year. "First quarter profits were 6.8 cents per pound on a cash cost basis for the industry as a whole. Prices have drifted down and feed costs have moved up since the first of April and profits are now about 1 cent r pound," says Мг. Doerr.

#### COSTS NOT BEING COVERED

He cautions however that cash costs do not include financial costs, distribution costs and general corporate overhead. With these costs included Mr. Doerr figures "(ethylene producers) are not covering offsite overhead and the full cost of ethylene production," at May

Another analyst doesn't see such a lean picture and puts May profitability, on a cash cost basis, at about 2 cents to 3 cents per pound. He adds however, that ethane, the primary olefin feed, should see stronger pricing in the third quarter and warrant a "passa-long" for ethylene. The analyst predicts that ethane contracts should gain about 3 to 4 cents from their current level of 15 cents per gallon. He says, however, that feeds will remain volatile since it is uncertain what the price of crude oil will do. "I wouldn't be sur-prised," notes the consultant, "If we saw a 4 dollar per barrel increase in the price of

crude oil during the (third) quarter." Spot prices quoted last week on the Gulf Coast, for the various ethylene feeds, along with their change since late March are as follows: 17 % cents per gallon for ethane; up 1% cents, 26 cents per gallon for propane; ap 1 cent, 30 cents per gallon for butane; unchanged, 38% cents per gallon for naphtha; up 5 % cents and 36 % cents per gallon for gas II, down 5 1/2 cents.

Prices for these feeds have been volatile since the start of the second quarter as the crude oil market is fraught with uncertainty. In May spot ethane had been as high as 20 cents per gallon.

One major buyer, who is skeptical of ethylene producers' difficulties, concedes that feed prices have been unstable but doesn't expect a reversal in the latest downturn in natural gas liquid pricing. "Feed prices should stay down and we don't expect NGL's to increase ethylene costs," says the

While ethylene is not the money loser it was last year, the outlook has changed, espe-cially for chemical producers integrated sure on marketers to increase cash flow and improve margins. Poor returns on ethylene especially during a period of strong demand will not be sufficient."

Ironically, while observers cite poor to nonexistent profits for ethylene supplien they also point out that supply demand condtions are healthy. Operating rates, according to one analyst "are in the mid-90 percen range," and producers agree that down

#### **PRICES TRENDLINES**

WEEK ENDING JUNE 6, 1986

CHANGES/UP

CHANGES/DOWN

#### **ALIPHATICS INDEX**

The Aliphatic Organics index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

June 6, 1986	222.80
May 30, 1986	222 80.
May 9, 1986	222 80
June 7, 1985	202.00
	£03.00

Chemical Prices Start on Page 32.

stream markets, in particular polyethyles: are vigorous. "We expect polyethylene de mand to gain by 5 percent in the second ha of this year," claims one ethylene supplie According to International Trade Commit sion figures, released last week, first quarte output of low density polyethylene was 2.1% billion pounds, a 3.8 percent increase overthe first quarter of 1985. High density poly ethylene production totalled 1.789 billion pounds, a 6.3 percent increase over fin quarter 1985 figures. Polyethylene accomb

for about 50 percent of ethylene's end uses. Some producers with large internal need for downstream production may find it est ier to reduce sales if price increases are no gained. Says one of the consumer/supplied "we are consuming a lot of product at a increased rate...we would back away from the market if prices don't increase.'

A number of observers see the June price initiative as a "trial balloon" for further firming in the third quarter. Says one and lyst, "the success of the third quarter is crease will depend on the effectiveness of the June move... whatever gain (producers) get a June will support a hike in July." Some producers ducers may be hedging their bets however, a case the June initiative fizzles. "It is difficul to raise prices in the middle of the quarte and even harder to do so at the end," says of producer. He says the success of a June property in the supply state of the supply state. On the supply side, the startup of Occide, tal Chemical's 500-million-pound-pervenuit in Lake Charles, La., originally school uled for early 1986, has been nostposed.

uled for early 1986, has "sometime in mid-June" due to a spate "minor mechanical problems."

Phillips Chemical Co. has successf added 12 million pounds per year of capacatits Sweeny, Tex., 2.14-billion-pound-w year plant as of mid-May.

Corpus Christie Petrochemical Co. to take an extended turn around at its 1.2 lion-pound-per-year unit early next year, bil has successfully restarted its 1.05-bill pound-per-year Beaumont, Tex., unit on \$25 after a two-week turnaround. Exxon \$25 after \$25 afte be taking a one-month turn around at its

#### **ALIPHATICS**

billion pound per year Baton Rouge, La. fa-cility starting in mid-September.

BUTADIENE - Shell Chemical Company, according to a number of producers, has announced that it will be charging 14c. per pound for butadiene sold after June 2.
This effectively lowers the price, by 2c. per pound, from its average selling price in May of 16c. per pound. A Shell spokesman, however, said his company would "decline to confirm or danne" the properted price move. firm or deny" the reported price move.

One producer, commenting on Shell's re-ported move says "it will be difficult for the rest of the industry to maintain prices (at May levels)." He notes that major butadiene isumers, such as styrene butadiene rubber makers "are not healthy" and will be looking for all the relief they can get.

Sources say that 14c. per pound may be close to the bottom for butadiene prices. Values for imported crude and finished streams. are seen by domestic producers as the floor for butadiene values in the US. Recently, material has been moving through Rotterdam at 10 cents per pound according to one source. With a shipping charge of about 3 1/2 c. per pound to the US, one domestic producer says "we've got to be close to the bottom now."

PROPIONATES - Niacet Corporation has revised its price schedules on calcium and sodium propionates, in order to be "fully competitive with regional marketing conditions," according to a company spokesman.

Chicago, Ili. has been added to the list of freight equalization points, effective immediately. Other equalization points are Dallas, Tex., Verona Mo., and Linden, N.J.

The company is also offering a 9c. per pound "competitive allowance" on shipments to the West Coast. "The West coast allowance reacts aggressively to pricing of-fered by Taiwanese imports," according to a Niacet spokesman. Niacet's list price, for truckload bagged

quantities, for both calcium and sodium pro-pionate, is 49c. per pound, f.o.b. Niagara Falls, N.Y.

OXO-ALCOHOLS - Shell Chemical Com-

pany says that its Dear Park alcohol units are running normally after a two week mainte-nance period ended in late May. The com-pany has had production difficulties at the site since last Fall and was forced to put customers on 50 percent allocation since February. Shell would not comment on the present status of its allocation program but one industry source says that the company moved up from 50 percent to 75 percent allo-cations in June, He expects Shell to return to

normal deliveries by July.

Until that time, bargeload shipments of alcohols such as n-butanoi will be difficult to get. Some customers have had to settle for tank car shipments only during the reduced allocation period.

Alcohols affected by operating problems at the Deer Park site have been; n-butanol, iso-butanol and 2-ethyl hexanol.

#### Biotechnology Company Continued from Page 5

and undesirable fatty acids and has no "fishy" odor. Large-scale culture ponds and processing facilities operated in Kona, Hawaii, allow the company to mass produce

microalgae so that any desired quantity of EPA can be produced, Cyanotech says.

The company has been producing EPA in pilot facilities at Woodinville, but now wants to mount a commercial-scale operation at the Hawaiian site and is looking for a corporate partner to complete product development and assume responsibility for distribution. The company is talking with four unnamed major pharmaceutical firms about an EPA project, a spokesman says. Cyanotech plans to produce algal EPA in

two forms; first as a dried algal powder containing approximately 10 percent EPA for over-the-counter sale as a health food, and, second, as a purified oil containing at least 75 to 80 percent EPA.

Procedures for production of the dried 10 percent powder are "pretty well set," the spokesman says, adding that a commercial product could be available by the first quarter of 1987. The company is working on refining its extraction and purification procedures for the purified product, he says.

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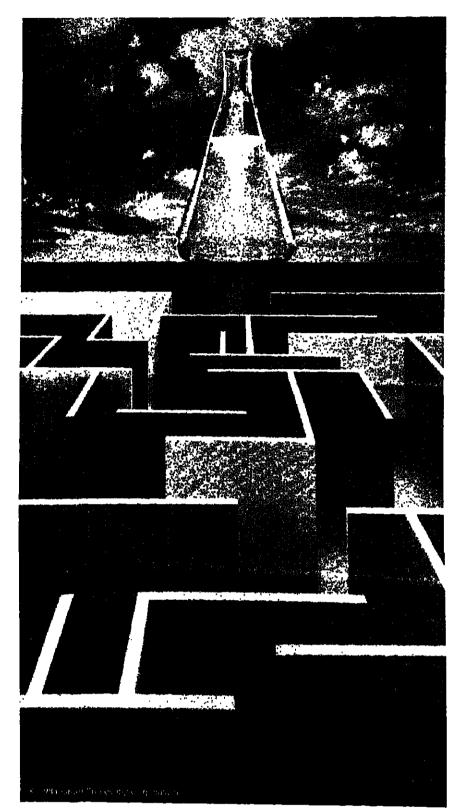


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# | Sulfur Lease Proposed **By Interior Department**

Interior Department's Minerals Man agement Service (MMS) is requesting preliminary expressions of industry in terest in a proposed sulfur lease sale in the Central and Western regions of the Gulf of Mexico's Outer Continental Self. Comments are also sought on a prelimi nary proposal for salt leasing in conner tion with the extraction of sulfur.

MMS director William D. Bettenberg noted that there are currently four active sulfur leases in the Gulf, off the Louisian coast but that no sulfur lease sale has been held since 1969.

"A new lease sale is being considered non because sulfur use has outpaced production in recent years and stockpiles are being enhanced at a steadily increasing rate," Me Bettenberg said.

In citing the need to encourage new sulfe exploration, Mr. Bettenberg said, 'We show act now to prevent a serious shortfall of se fur in the near future. There is a developing market for new sulfur production and w have the sulfur resources offshore to be supply that market."

Of the three US companies that mine at fur, Freeport, Pennzoil Sulfur and Texasgu only Freeport is currently involved in da **s**hore mining.

A spokesman for Freeport said the cop pany was "interested" in the MMS request) addition he said that Freeport is currenly the process of reopening one of its offshe

# Fluoroelastomer Plant On Stream for 3M Co.

3M Company has brought on stream what it calls the first major fluoroels tomers production facility in Europe? Antwerp, Belgium. In addition, the conpany signed an agreement with Hoeck AG under which Hoechst will supply ca tain fluoroelastomer latexes to 3M th

will be further processed at Antwerp. The new plant at Antwerp doubles 300 fluoroelastomer capacity to 4,000 tons possible year. The company already operates a plain Decatur, Ala. 3M says the supply arrangement with Hoechst will enable the company to add another 1,000 tons of capacity and another within a vector Antwerp within a year.

Hoechet, is well along on its program boost "Hostaflon" fluoropolymer capacity its Gendorf, Germany plant which are is roclastomer precursors. The company plast to double its polytetra (luoroethylene (PTF) at Gendorf to 7,000 metric tons per year. M the same time, the company is expands tetrafluorocthylene monomer capacity Gendorf and hexafluorpropylene monome

#### Obituary

#### Rudolf G. Sonneborn

Rudolf G. Sonneborn, retired chemical and petroleum company executive, died June 1 in Danbury, Conn. He was 87 years old.

Mr. Sonneborn started his business career over sixty years ago when he joined what was then L. Sonneborn Sons, Inc., a family-owned petroleum and chemical business, after having attended Harvard University's graduate school of business administration. school of business administration.

Mr. Sonneborn became president of L. Son-

neborn Sons in 1953. He was a founder of the Twenty-five Year Club of the Petroleum Industry and also served as president of the Oil Trades Association of New York. In 1955 Mr. Sonneborn purchased an oil company in Israel from Mobil Corporation and renamed it Sonol Israel Ltd., today one of the three leading oil companies in Israel.

In 1960, after a serious illness, Mr. Sonneborn's company was merged into Witco Chemical Corporation. He became a member of the board of directors of Witco and remained a director until his retirement in

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June 9, 1986

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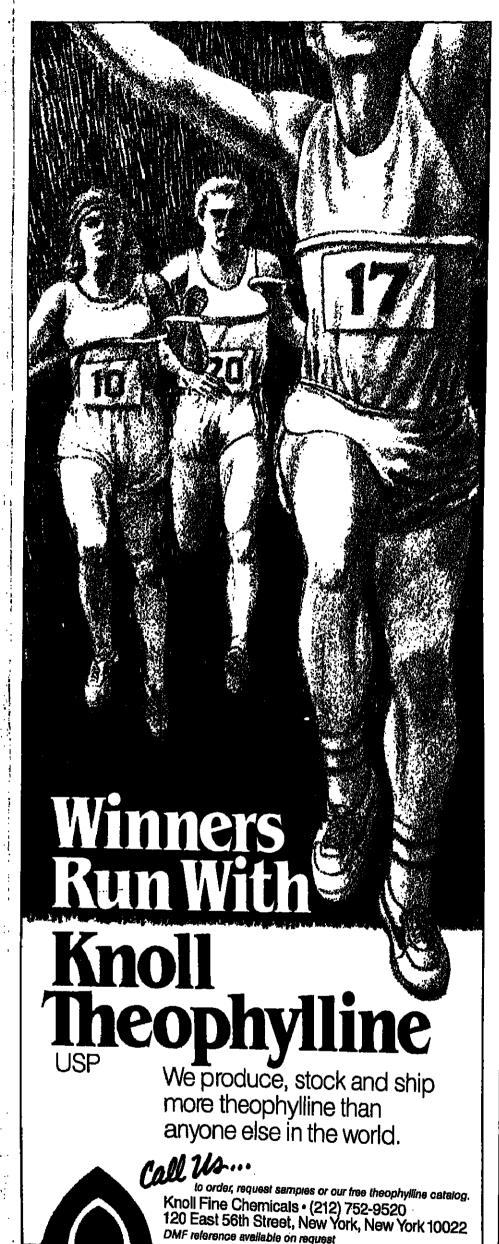
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CHEMICAL MARKETING REPORTER



# **DRUGS & FINE CHEMICALS**

# **Ephedrine Derivatives Firm** As Cold Remedies See Growth

grown strongly during the last year, industry observers agree. They disagree on the outlook for future growth how-

Most industry spokesmen say that pre-dicted growth of about 10 percent has materialized for the primary ephedrine derivatives: ephedrine hydrochloride, ephedrine sulfate, pseudoephedrine hydrochloride, and pseudoephedrine sulfate. In fact, one impmorter lays claim to a 20 percent growth.

One of the largest sources, Burroughs Wellcome, comments that growth for "Actifed" has been very good to date. In 1983, Burroughs brought its then-prescription "Actifed" to the over-the-counter market.

If growth does occur, it appears certain that it won't be spurred by the use of ephedrine derivatives as a substitute for phenylpropanolamine hydrochloride in some formulations, such as cold remedies. PPA hcl is being studied by the Food & Drug Administration regarding trace amphetamine con-tent. A ruling was scheduled for February 15, but no decision has been made yet. Despite this, sources unanimously agree that there is no potential growth in this area.

#### EPHEDRINE DERIVATIVES USED

However, most of the major cold remedies use ephedrine derivatives, particularly pseudoephedrine hcl. "Nyquil" (Richardson-Vicks), "Actifed" and "Sudifed" (Burroughs Wellcome), "Drixoral" (Schering-Plough), and "Co.Tulerel" (Laborate & Laborate & Lab and "Co-Tylenol" (Johnson & Johnson) all use an ephedrine derivative as an active ingredient. "Comtrex" (Bristol-Myers) uses PPA hel, though, and a SmithKline Beckman spokeswoman says "Contac" will use PPA hel when it returns to the shelves.

"Nyquil" has the highest market share (12 percent), while Burroughs' "Actifed" and "Sudifed" are second and third, respectively, combining for a 19-percent market share. These figures are reported by Charles H. Kline & Co. Kline pegs sales growth for cold remedies at about seven percent.

Price increases could come because of increased costs in labor, materials and transportation, say sources. One spokesman says a price increase has been "talked about for quite a while," but that it always comes down to "who is willing to take a chance." Another spokesman thinks Knoll AG's capacity expansion will affect market conditions. By 1987, Knoll, part of the BASF group, will reportedly have a capacity of 700 metric tone making it by for the learner to tons, making it by far the largest source of

Knoll lists the following prices: \$40.25 per

Ephedrine derivative sales have ephedrine sulfate, and \$55.50 per kilogram for pseudocphedrine sulfate. An importer of Chinese material lists prices of \$43 per kilo gram for ephedrine hel, and \$62 per kilogram for pseudoephedrine hel. West Germany, the US and China are the main sources of ephedrine derivatives.

> ASPIRIN — Dow Chemical U.S.A., Midland, Mich., is raising its aspirin prices, effective tive July 1. List prices of the following proucts are being raised 10c. per pound: Aspiri granules, 10 percent starch, \$2.07 per pount

#### PRICES TRENDLINES

**WEEK ENDING JUNE 6, 1986** 

CHANGES/UP

Calcium Pantothenste, \$1 per kilo lodoform, \$1 per ib. Potassium lodide, .80 per ib. Purified lodines, \$1 per ib. Sodium iodide, .85 per lb. Thymol lodide, .50 per lb.

#### CHANGES/DOWN

#### **DRUGS INDEX**

The Drugs & Fine Chemicals index re flects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

Chemical Prices Start on Page :	32.
June 7, 1985	211.1
May 9, 1986	211.1
May 30, 1986	211.1
June 6, 1986	211.1

aspirin crystals, \$2.05 per pound; and 100 percent aspirin granulation, \$2.15 per pour All terms and conditions will remain the

CALCIUM PANTOTHENATE - Hoffmann-La Ruche, Nutley, N.J., reports the latest in a series of industry-wide B-vitamb price increases. Effective immediately, the company's d-cal-pan price will be \$11.50 per kilogram, up from \$10.50 per kilogram BASF Corporation raised its price May \$ (CMR, 5/26/96, pg. 16).

same. A spokesman says the increase repre-

sents strengthening global demand.

A Hoffmann-La Rocho spokesman says the increase is because of depressed prices during the last two and three years, Prices for other B-vitamins, such as pyridoxine by drochloride, thiamine hydrochloride and the amine mononitrate, have also been incress kilogram for ephedrine hel, \$45.25 for ing recently. All of these products are said to

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#### **DRUGS & FINE CHEMS**

be returning to levels of the early 1980's.
IODINE PRODUCTS — Mallinckrodt,
Inc., St. Louis, reports that effective June 1, it raised its prices for several lodine products, because of recent increases in crude lodine prices (CMR, 5/19/86, pg. 21).

Potassium iodide has been raised by 80c. per pound, up to \$12.05 per pound. Sodium iodide now costs \$17.19 per pound, a hike of 85c. per pound. Purified iodines were increased by \$1 per pound, up to \$17.62 per pound. Also, two specialty iodines were in-creased. Thymol iodide now costs \$57.20 per pound, an increase of 50c. per pound, and iodoform was raised by \$1 per pound, up to:

\$24 per pound.
All price increases apply to both list and discounted-list prices. Current customers

have been given 30-days' price protection.

POTASSIUM BENZOATE — American nternational Chemical, Inc., Natick, Mass., is now offering potassium benzoate in flake and dense form, according to a spokeswoman for the company.

She notes that potassium benzoate is being widely used as a replacement for sodium benzoate in applications in which low sodium content is needed, such as in some food appli-

The spokeswoman stresses that AIC will still be providing sodium benzoate, and that the company is not making a complete switch to potassium benzoate. The product is kept in Totowa, N.J., Chicago, and San Fran-

The material is priced at 91c. per pound for flake, and 97c. per pound for dense.

THIOGLYCOLIC ACID AND DERIVA-TIVES - The Evans Chemetics Unit of W.R. Grace & Co. reports it is raising prices for thioglycolic acid and several derivatives, effective July 1.

Thioglycolic acid, concentrated, will increase by 19c. per pound, to \$2.07 per pound. Thioglycolic acid 80 percent solution is increasing 15c. per pound to \$1.69 per pound. Also, ammonium thyioglycolate will increase by 12c. per pound to \$1.36 per pound, and glycerol monothyloglycolate is increasing 19c. per pound to \$2.13 per pound. A spokesman notes that there are other increases as well, but these are the major prodnets that will be affected.

This is the first price increase in four years for these products, says the spokesman. He adds that a price increase was attempted late

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# DRUG & FINE CHEMICAL EXPORTS: MARCH

BUREAU OF CENSUS FIGURES ON THE KEY DRUGS.

ŀ		MARCH		PEBRUARY	
1	Antibiotics:	QUANTITY	\$ VALUE	QUANTITY	
ı	Ampicillin and salts, bulk gms.				
ı		475,415	636,036	17.074	537.050
ı	Penicilin G salts, bulk blu.	77,608	7,493,665	69,395	9,035,098
1	Penicillina, nep!	3,432,667	261,970	685,408	276,513
Т	Tetracycline	168,169	7,041,647	141,954	4,195,401
1	Aspirin	3,083	1,607,294	1.551	2,002,740
1	Caffeine and deriv	468,108	650,227	296,460	403,561
1	Citric acid	109,264	177,314	19,127	50,162
ı	Citric acidibs. Oplum alkaloids and derivibs.	386,326	463,534	1,138,761	775,336
ı	Hormones:	835	130,500	2,400	201,935
Т			,	4400	
ı	Corticosteroide, nspf	3.205	5,460,722	6,631	11,025,625
Т	Nonsteroid hormones	1,836	1,320,375	2,740	1.072,270
ı	Starold hormones and sunth attended in the	5,179	5,528,728	4,986	7,296,235
ı	Steroid hormones and synthetic	168,009	5,393,395	286,247	4,263,193
I	Suifonamides, bulk	58,389	669,623	122,611	1,548,631
L	Ascorbic Acid		,	122,011	- Identica
ı	Ascorbic Acid.	122,229	563,203	80,177	225.225
ı	Vitamin A and Pro-vitamin A, bulk ibs. Vitamin B, (this wire)	127,339	163,212	70,474	39.964
ı	Vitamin E	15,430	170,054	110	2 025
L	Vitamin B. (thiamine)	36,940	733,449	104,580	440 077
L	Dand Di pantationia anti-	18,460	35,705		5 440 a
ı	Vitamin B <sub>12</sub> lbs.  D and Di pantethonic sold lbs.  Nisoln and plactured by	2,205	18,710	199	1
ı		54,041	131,595	49,256	100,000
ı	Vitemina, nepf	100,862	736,725		488 1815
ı			. 4411 20	144,777	494

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CHEMICAL MARKETING REPORTER

#### **Lubrizol Specialties Plant Dedicated in South America**

Lubrizol Corporation, Wickliffe, Ohio, has formally dedicated a Venezuelan specialty chemicals manufacturing facility constructed in joint venture with Corporacion Grupo Quimico, C.A.

Operated by the newly formed joint venture firm, C.A. Lubricantes Quimicos, L.Q., the facility brings to 17 the number of Lubrizol specialty chemical plants in operation.

The plant will manufacture high-technology additives for gasoline and diesel engine oils and gear oils, as well as viscosity improvers and high molecular weight dispersants to be supplied to the Venezuelan petroleum industry.

Speaking at dedication ceremonies at the site in San Diego de Valencia, West of Cara-

site in San Diego de Valencia, West of Cara-cas, L.E. Coleman, Lubrizol's chairman, said the new manufacturing plant "introduces a major advance in the production and supply of specialty chemicals to the Venezuelan oil

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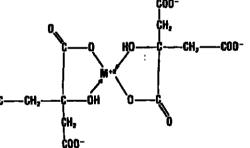


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Continued from Page 7 some steps need to be taken to protect the sulfite-sensitive consumer.

Sulfite Labeling

The report said FDA's proposal to require labeling of sulfites in packaged foods that contain significant residual levels may be unreasonable since current analytical meth-

ods are inaccurate at low levels. The researchers said the label declaration limit could be raised to 25 or 50 ppm without putting sensitive consumers at any greater risk. They concluded that banning selected uses of sulfites is not justifled with the possi-ble exception of the direct use of sulfites in restaurants where most of the severe reactions have taken place.

The search of alternatives to sulfite should be continued, Dr. Taylor told a Washington news conference.

"Given the small number of individuals identified as sulfite-sensitive and potential severity of the reactions, label declaration and restricted bans of unlabeled and poorly controlled uses of sulfites sould be sufficient means to allow avoidance of potentially hazardous, sulfited foods," he said.

An overall ban of sulfites in foods "does not appear warranted," Dr. Taylor added.

Sulfites are used in many foods and beverages, IFT points out, with the highest total levels occurring in dried fruit (excluding dark raisins and prunes), non-frozen lemon and lime juice, wine, molasses and sauerkraut juice. Dried potatoes, grape juices, wine vinegar, gravies, sauces, fruit toppings and maraschino cherries are also modest sources.

Pectin, fresh shrimp, corn syrup, pickles and relishes, starch, hominy, frozen polatoes, maple syrup, jams and jellies (imported only) and fresh mushrooms also typically contain sulfite at amounts at or above FDA's label

triggering level. Most people's body chemistry metabolizes sulfites by means of an enzyme, sulfite oxi-dase, and the product is excreted as harmless sulfate. This is true whether the sulfites are consumed or inhaled.

Most persons can safely consume substantial quantities of sulfites without consequences, and even some sulfite-sensitive people can ingest 100 to 200 milligrams without

"Rowever, the more sensitive individuals (5-50 mg thresholds) can easily obtain a provoking dose of sulfite in a single meal," the IFT report says.

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#### **Du Pont Company Exits Heat Exchanger Business**

E.I. du Pont de Nemours & Co. has sold its "Teflon" heat exchanger business to Ametek Inc. Du Pont did not disclose terms of the sale, which includes product and manufac-turing technology and dedicated equipment, but said it will not materially affect its earn-

ings.
"Teflon" heat exchangers were developed for heat transfer in corrosive operations. Primary markets for the heat exchangers include pickling operations in the metals and steel industry, metal plating in widely diverse industries, and corrosive operations in the chemical industry.

#### **Dow Sells Millipore Stake**

Dow Chemical Company has sold its total noldings in Millipore Corporation through Smith Barney Harris Upham & Co. and Alexander Brown & Sons, Inc. Dow reported in 1984 that it had purchased approximately 9.3 percent of the outstanding shares of Mil-

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June 9, 1986

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DuPont Sets Continued from Page 3

"Hytrel" polyester elastomers from Du Pont-Toray, a joint venture.

"It is a primary goal of ours to market our technology and expertise internationally." Mr. McAndrews, says "and we believe our new organization will greatly facilitate our

The new department will initially be comprised of segments from existing Du Pont departments including polymer products and finishes and fabricated products.

Mr. McAndrews says the new department is a major step in a series of recent actions to strengthen the firm's commitment to the au-

tomotive industry. Earlier this year, Du Pont signed an agree-ment to purchase the Ford Motor Company's North American automotive paint operations, and opened a multi-million-dollar technical service laboratory in Troy for the development of thermoplastic autobody parts. Later in 1986, the company will open a full-says.

scale state of the art coatings application laboratory in Troy

Chemical companies have continued to en large their technical service and development facilities in the Detroit area in an effort to forge closer links with their customers.

Within the last month, for example, Cha-Geigy Corporation opened a \$3.5 million marketing, development and technical sevice center in Madison Heights, Mich. and Mobay Chemical Company dedicated an erpansion of its automotive headquariers of ces in Troy, Mich.

BASE lumont will complete a \$15 million robotized auto pant applications laborator at Southfield, Mich at the end of this month for start-up in the third quarter which wi duplicate the workings of an auto plantan handle full-sized car and truck bodies.

In April, the company introduced a ner line of water borne base coatings which, with solvent-borne clear coats, will be the auto motive coatings of the future, BASF Inmer

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# **HEAVY & AG CHEMICALS**

# American Chrome and Diamond Raise Chrome Chemical Prices

US producers of sodium bichromate and chromic acid are raising prices this month, and indications are that the increases will hold. Working in their favor are a plant shutdown by one overseas producer, the decreased value of the US dollar, and generally depressed price

American Chrome & Chemicals and Diamond Shamrock have hiked chromic acid five cents per pound and sodium bichromate three cents per pound. Chromic acid moves to a list level of \$1.08 per pound while bichro-mate will remain at 57 cents per pound for

crystals, 52 cents per pound for crystals, 52 cents per pound for solution, the increase being for off-list prices.

American Chrome's increase was effective June 1 (CMR, 5/12/86, pg. 26) while Diamond Shamrock's was effective May 19 for spot customers and June 18 or as terms permit to contract customers.

Pre-hike selling prices for large buyers of both items, however, are reported to be much lower: in the 35- to 40-cent-per-pound range for crystalline sodium bichromate and from

85 to 90 cents per pound for chromic acid.
Understandably, US producers and importers alike feel the increase is much needed. Observers say that US producers have kept their prices very depressed for the last several years to discourage import com-petition, which was almost non-existent five

years ago.

Nevertheless, imported material seems to be here to stay, despite the depressed pricing. The major overseas players in the US market are Bayer AG, Kromsan of Turkey, British Chrome, Luigi Stoppani SpA of Italy and the Soviet Union. All told they account for approximately 10 percent of the US chrome

#### **ITALIAN FACILITY SHUT**

Sources say that price increases in Europe as well as changes in the value of the dollar with respect to European currencies have put upward price pressure on overseas material. This phenomenon does not effect USSR

Bureau of Census figures show that through March bichromate and chromate imports from USSR are about one-half million pounds, almost twice year-earlier level, despite claims by others in the industry that

the material is of inferior quality.

To justify the price hike, producers and importers alike point to the shut-down, earlier this year, of Stoppani because of pollution problems. Sources say Stoppani had been on and off since January and is now down totally.

Bureau of Census figures imply that the effect of the shutdown has been mostly on chromic acid. Italian imports through March are under 400,000 pound, less than half the corresponding figure for 1985. Imports of sodium chromate and bichromate, however, have increased from about one-half million pounds to over two million pounds for the corresponding through-March periods.

According to a source at White Cross Laboratories Inc., the exclusive distributor for Stoppani in the US, Stoppani says that it has inventories of bichromate crystal to last over a year, so that these supplies should not pose

Biochromate solution, says White Cross, is well stocked in the US, although shipments from Italy are not expected until the end of the year. Chromic acid is not well stocked here or in Italy but shipment is expected to restart by the middle or end of the Summer.

The Stoppani shutdown has provided at least a temporary new market for US material. Through March amost one million pounds of chromic acid, one-quarter of all acid exports, have been shipped to Italy from Diamond Shamrock's plant. No exports to Italy accuracy in 1995 would be companied. Italy occured in 1985 until December.

In general, chromic acid demand is said to be stronger than bichromate demand. Wood reatment continues to grow, producers say,

especially as the high demand Summer approaches. Opinions about metal treatment ary, with one producer claiming that Detroit's recent upswing in auto production has helped and the other saying it hasn't.

Sodium chromate demand is still in the doldrums, according to sources. In addition to long standing poor sales to the leather tanning, pigments and water treatment businesses, use in oil drilling muds has of late dropped considerably, as the number of US oll rigs is at a long-time low

One change that is sure to affect the domestic business is the impending sale of Dia-

#### PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

**CHANGES/DOWN** 

#### **HEAVY & AG INDEX**

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

June 6, 1986	113.69 113.69 113.69
Chambool Paleon Start on I	200

mond Shamrock's chemicals business to Occidental Petroleum.

While Oxy's plans for the chrome line are not clear, one observer points out that, in the meantime, Diamond is likely to act for the short-term only.

In fact, most observers feel Occidental has little use for the business and will probably try to resell it.

One source cites a rumor that Bayer, the world's largest producer of chrome chemi-cals, has placed a bid with Occidental for the

#### BASES & SALTS

CHLORALKALI — Following Dow Chemicals' lead (CMR, 6/2/86, pg. 28), several chloralkali producers have announced price increases. For chlorine, LCP Chemicals & Plastics has gone up \$25 per ton, Occidental Chemicals has gone up \$15 per ton and Vulcan has gone up \$10 per ton. In addition, all three producers have increased caustic soda prices \$10 per ton for all grades.

For all, prices are effective immediately on spot purchases and as terms allow for contract business. Prices are freight equalized with recognized competitive producing

Also, producers say that upon reauthorization of superfund, the tax will be added as a separate line item to each invoice.

Producers cite high operating rates and strong demand, especially in the North, as justification for the hike. According to the Chlorine Institute, April effective operating over two years.

Chlorine price initiatives in January and April have been for the most part successful, particularly the latter one.

According to one source, selling prices in the Gulf to the VCM market have increased from the low \$120's in January to up to \$145 per ton in May.

#### **METALS & MINERALS**

ZINC - Falconbridge Ltd. announced last week that, effective immediately, for sales outside North America, the base selling prices for "Kidd Creek" brand zino metal has been increased to \$800 per metric ton from \$760 per metric ton.

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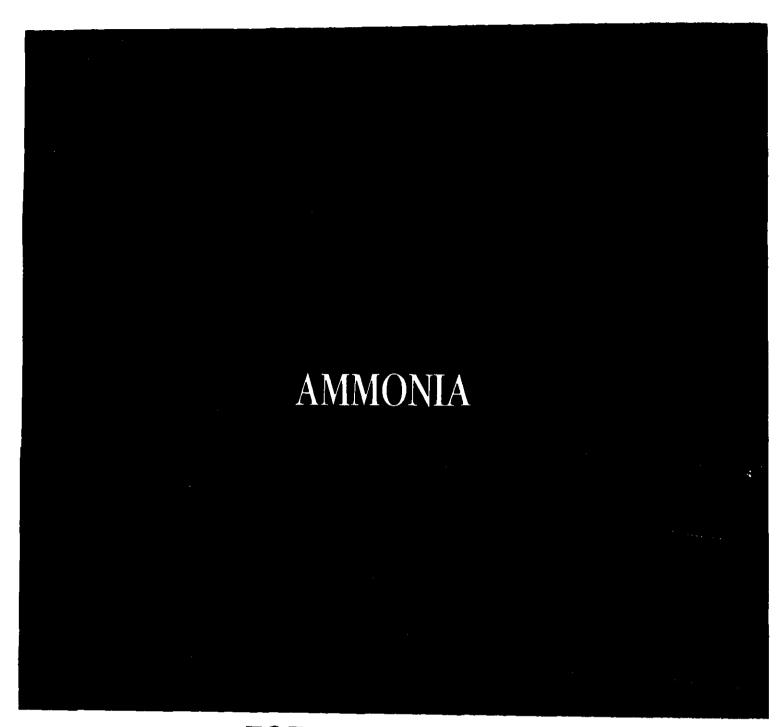


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June 9, 1986 CHEMICAL MARKETING REPORTER 27

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**COATINGS & PLASTICS** 

# PVC Producers Continued from Page 4

surplus to the export market up to two months in advance.

VCM exports climbed over 377 million pounds in the first quarter this year, which is equivalent to 1.5 billion pounds annually. Last year, US exports just exceeded 1 billion pounds. Observers say plant turnarounds in Taiwan and Korea has caused this sharp rise in overseas orders.

These two developments, sources say, deprived PVC makers from being able to turn out as much resin as they would like, which has led to tighter PVC supplies at a period of high demand, hence the push for higher

Even with a successful June increase though, PVC prices would only return to April levels. According to one source, resin prices slipped last month, because PVC pipe makers, the largest resin consumers, resisted buying resin at 30 cents per pound, mainly because pipe prices were weak and business was sluggish.

An industry observer recounts that pipe inventories soared early in the year when pipe makers bought large quantities of resin prior to a PVC price increase, and demand for PVC pipe got off to a slow start. Society of Plastics Institute figures show that pipe and tubing consumption of PVC resin in the first quarter sagged 8 percent below 1985 levels. In this weak market, a source says, pipe makers were able to push resin prices down.

#### SOARING PIPE DEMAND

At present though, the shoe is on the other foot. The construction market is booming throughout the country, PVC pipe demand is soaring, pipe and resin inventories are failing, and pipe makers are buying large quantities of resin. The 2 cent June increase stands a good chance of holding, an industry observer says, if the pipe market continues to run strong through its traditional Summer "plant holiday" period. If demand prompts pipe makers to run though July and August, the observer says at least part of the resin increase should stick.

Another factor pressuring PVC prices, producers say, are rising prices for feed-stocks ethylene and chlorine. Ethylene producers are seeking 1 to 2 cent per pound price increase for June and a similar increase for July. At the same time, chlorine makers are pushing price increases of \$15 to \$25 per ton for July, which follows a generally successful increase posted in April. Chlorine prices have already climbed from \$120 to \$145 per ton on

the Gulf Coast this year.

VCM prices, meanwhile, remain at 15 to 16 cents per pound for the time being. However, if the PVC increase sticks, one VCM producer says he'll try to push through the April 1 VCM 2 cent per pound price hike which was largely

#### PLASTIC MATERIALS

POLYSTYRENE — Several more firms have joined a move to raise polystyrene resin prices. Reacting to increases in styrene monomer prices, Huntsman Chemical Company, Dow Chemical Company and Monsanto Company earlier announced price increases for crystal and impact grades, effective July 1 (CMR 6/2/86, pg. 30). Dow raised prices Sc. per pound, and Huntsman and Monsanto raised prices 2c. per pound,

In a related move, Dow also announced a 4c. per pound increase for "Styron" ignition

#### THERMOPLASTICS

**BULK PRICES IN MAY** 

Polyethylene-LD,linerlb, Polyethylene-HD, injectionlb, Polyethylene-LLD*b,	MAY (US \$) .2628 .2426 .2526	APRIL (US \$) .2831 .2529	
Polypropylene, molding	.3336	.3335	
Polystyrene, g.pb.	.2832	.31%- 33	
Polyvinyi chloride, pipe b.	.30-,32	.2630	ı
*Butene-1 compnomer,			:

fill orders domestically, commit their resistant polystyrene precolored black surplus to the export market up to two grades, and 3c. per pound for natural grades, ffective also on July 1.

effective also on July 1.

The Cosden Division of the Fina Oil & Chemical Company has joined the initiative with a 3c. increase in selling prices for all grades of polystyrene resins, effective July 1. Polysar Inc. has announced a similar increase. Chevron Chemical Company and Mobil have relead prices also bil have raised prices also.

A spokesman for a polystyrene producer asserts that margins for the resin have been under pressure due to rising feedstock costs over the past few months. He concedes that

#### **PRICES TRENDLINES**

**WEEK ENDING JUNE 6, 1986** 

CHANGES/UP

#### **CHANGES/DOWN**

#### **COATINGS INDEX**

The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

June 6. 1986	306.4
June 6, 1986	306.4
May 9. 1986	306.4
June 7. 1985	306.4

Chemical Prices Start on Page 32.

feedstock costs had declined in January, but points out that resin prices eroded then also.

While costs "are always a factor in making a decision," according to a spokesman for another supplier, the current supply and demand situation also plays a role. He reveals that the industry is currently running very close to capacity. "We are sold out and have been for a while," says still another spokesman. He says that his company is tight on both impact and crystal grades, and adds that "nearly everyone else is too."

He continues that demand prospects for this Summer look bright. His customers report strong business and may alter their typical Summer production schedules, which would include shutdowns for vacation in July. The resin supplier says that some converters are running hard in June in order to build inventory to see them through July shutdowns, while other resin users intend to shut down for a shorter than usual period.

ZINC OXIDE - Pacific Smelting Company has raised its list prices by 4c., effective June 2. The move, which raises the list price for activation grades to 49c. and the list price for French process grades to 50%c. per pound, brings the company's list prices into line with those of most other major zinc oxide

A company spokesman attributes the increases to firming zinc metal prices as well as to general strength of the oxide market. He relates that zinc metal firmed twice in May, and increased in price by a total of 5c. per pound in that month.

The base value of raw material for oxide is tied to the metal market, the spokesman says. He notes that the current metal situa-

Several other producers said last week that they had made no announcements of increased list prices, and noted that the Pacific Smelting move brings the company up to levels already posted by other produc-

One competitor notes, however, that there has been a strengthening in the marketplace. He says demand is strong currently, and the Summer months won't produce much of a full. Demand is up by "a couple of percent" over year-to-date figures from last year, he estimates, and he speculates that the full year could see similar growth compared to

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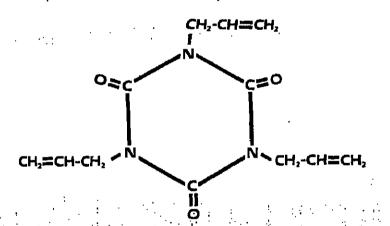
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CHEMICAL MARKETING REPORTER

mint oils indicate some growth in antici- 100,000 pounds, a Far Western source repated Midwestern peppermint oil production while some carryover inventories from last year are down substantially from the previous year, particu-server concludes. larly in Willamette and Midwestern grades.

Some traders voice concern over very dry AROMA CHEMICALS weather in the Far West which will affect farms dependent on reservoirs for irrigation. However, caution is still prevalent, and predicting any market changes because of this development is considered premature. "It's kind of early to draw rash conclusions," says a Far Western oils source. The dry weather would exert the greatest effect on Yakima grade peppermint and Far West Scotch and native spearmint oils.

Midwestern peppermint growers report-edly experienced a relatively mild setback earlier this year due to "some dryness and wind conditions" which ripped out some plantings. The market is up slightly, with some contracts being written at \$14 per pound, sources report.

#### CARRYOVER SUPPLIES ASSESSED

"The lack of moisture doesn't bother me." says a Midwestern oils trader, who cites experience with better oil yields after hot weather. Crop conditions are curently characterized as average, having stabilized after the early setbacks, and market movement is described as slow.

"Willamette is getting expensive, going up and up," says a New York essential oils bro-ker. Increased preference for Willamette has been cited in the last six months, which has affected demand

Spot and contract levels are quoted at \$11 per pound by Far Western trader; a Midwest-ern trader says \$12 or \$13.50 levels would be more accurate.

Carryover supplies were estimated down about 450,000 pounds this year, to about 185,000 pounds. "Not much inventory is available," says one trader, "carryover supplies were definitely dwindled into" during the interim season.

This market is characterized with some degree of inconsistency, with sources report-ing increased demand but that farmers are having difficulty commanding higher prices.
"We've reached a stalemate," says a

Willamette Valley source. "Very few growers were willing to accept contracts at \$11, but the market is expected to remain at that level, possibly to go a bit higher," the source

Crop conditions for 1986 in Willamotte grade are described as average, but some growers had had to treat fields with more than usual amounts of pesticides, which will affect costs, but not supplies.

Madras grade peppermint oil is described in very short supply, and yields for 1986 are expected to be lower than last year. Another source reports few inquiries for this oil. adding that when the Madras price becomes comparable to Midwestern, which is regarded as higher quality, substitution tends

Spot and contract figures are down by

#### **PRICE HIGHLIGHTS**

PERFUMES IN MAY PEPPERMIN 2/24/86 Oregon/k Medres \$8-\$9,50 \$9.50-\$10.50 \$13-\$14.50 \$14-\$14.50 \$13-\$14 \$11-\$13.50 \$14 \$11.50 \$9.50 \$8.50-\$10.00 SPEARMINT or West, netty \$10.75-\$11.50

Midwest, native ...... \$12 Far West, Scotch ...... \$14.50.\$15.25 \$15 Midwest, Scotch ...... \$14.50.\$15.25 \$15

# **PERFUMES & FLAVORINGS**

# Peppermint Oil Inventories Down: Midwestern New Crop Acreage Up

New crop acreage figures for 1986 3,000 acres and carryover stocks up over ports. Spot and new crop prices are quoted at \$7 per pound, with moderate movement of oil, according to one source. "Prices will re-

BEAVER CASTOREUM - This specially recently experienced a \$10-per-pound price reduction, according to one aroma chemicals

#### PRICES TRENDLINES

**WEEK ENDING JUNE 6, 1986** 

#### CHANGES/UP

Caraway send, Dutch recl., 10c. per lb. Dill seed, Indian dewhiskored recl., 2c. per lb. Fonnel seed, Egyption, 3c. per ib. Fennel seed, Chinese light, 3c. per ib. Fonnel seed, Turkish axtra, 3c. per ib. aurol lenvos. Turkish somi-solect. 4c. per lb. Laurel leaves, Turkish hand-picked in cins, 10c.pe

neg, East Indian record. Dutch. 10c. per lb. Pepper, Muntok white, 5c. per Ib. Pepper, Brazilian white, 20c. per Ib.

#### CHANGES/DOWN

Allapico, Contrat American, 2c. per lb. Annata seed, Indian very limited, 10c. per lb. Cardamoms, Indian bleached, 10c. per lb. Cardamoms, Indian Dieached, 10c. pt Cinnamon, H-2, 5c. per lb. Cloves, Madagascar (Brazil, 5c. per lb. Cumin soed, Turkish, 2c. per lb. Fennel seed, Indian NPNS, 4c. per lb. Ginger, Jamaican No. 3, 30c. per lb Onion, chopped, 7c. per lb. Papper, Melabar black. 1c. per lb.

#### **PERFUMES INDEX**

The Perlumes & Flavorings index re flects the prices of 11 representative materials in this sector and the quantity

or each supplied in 1985.	
June 6, 1986	71.00
May 30, 1986	71.0
May 9, 1986	71.0
June 7, 1985	82.4

Chemical Prices Start on Page 32.

broker. He cites lower prices quoted at a Canadian fur auction which periodically trades beaver castoreum

#### **SEEDS & SPICES**

NUTMEGS — After plateauing at \$2.60 per-pound levels, East Indian reconditioned Dutch grade spice leaped forward again, last week to \$2.70 per pound.

"Nutmegs flared up again this week, as all offers advanced on some good demand, comments one broker. Mace has not yet for

OREGANO - In the wake of 10c. to 15c. increases in pricing recorded two weeks ago. Mexican oregano is characterized as being in short supply until Winter, according to one spice broker.

However, "offers for new crop Turkish oregano are not yet attractive enough to to vive demand from here," this broker of

Turkish 30 mesh oregano is quoted at \$60. per pound; Greek 30 mesh, 93c. per pound; Mexican extra fancy, 90c. per pound; Moro can, 62c, per pound.

CASSIA - "Resellers continue to offer shipment and afloat parcels below replace ment," says one spices source regarding the Indonesian cassia market, adding, "prigit is unable to sell at its levels."

Korintiji A cassia is quoted between and 92c. per pound; Korintii B; 70c. if is per pound. "Sales of Chinese Tunghing day, will also put pressure on Padang," says the

US imports of chemicals and related materials are reported in this section by CPI masterial. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A L ZINC BACITRACIN A L Laboratories 800 bgs (41,039 bg) (Kezimlerz Pulaski) Bremerhaven, 5/5.

ABS RESIN Goldmark Plastic Compounds 840 bgs (46,648 lbs) (American Marketer) Busan, 4/25.

ACETANLIDE Loyden Customs Expeditors 320 bgs (35,626 lbs) (Hoegh Carrier) Bombay, 4/18.

ACETYL PARAMINOPHENOL Ribons Poutenc 360 dms 4/13 304 lbs) (Albertis Escrice) is Alterna 4/29.

ACETYL PARAMINOPHENOL Hinone Poulsen's 80 dms (43,294 bb) (4tlentic Service) Le Havre, 4/25. ACID Three V Chemical 126 dms (38,889 lbs) (TFL Franklin) Bremerhaven, 5/5. ACID TARTARIC Tartarto Chemicies 400 bgs (44,974 bb) (Argonaut) Genoa, 5/5. AGAR AGAR Chart 30 dms (3,638 lbs) (Japan Ambrose)

Nagoya, 5/4. ALCAPARRADO Goya Foods 2,344 cs (45,814 lbs) (Sea Land Leader) Algectras. 5/8. Goys Foods 2,348 cs (89,436 lbs) (Argonaut) Cadiz,

ALKYL SULPHONIC ACID HARDENER Ploneer Plastics dms (1,940 lbs) (Dart Altantica) Bromerhaven, 5/8. ALUMINUM NITRATE 9 HYDRATE Order 40 dms (4,620

be) (TFL Frankin) Bremerhaven, 6/5,
ALUMINUM OXIDE Norton 115 mix (78,759 lbs) (Dart Atlantica) Bremerhaven, 5/8.
AMINO 5 NITROBENZOIC ACID Janel Intil Fwdre 227 pkg AMINO 5 NIT HOBENZOUG ACID Janel Init Pwdrs 227 pkg
(25,163 lbs) (Stuttgart Express) Rotterdam, 4/29.

ANILINE COLOR Order 325 dms (22,386 lbs) (Stuttgart
Express) Greenock, 4/29.

ANILINE DYES Mobay Chemical 148 dms (15.421 lbs)
(Stuttgart Express) Rotterdam, 4/29.

ANISE ESSENTIAL OIL John D Walsh 5 dms (2.425 lbs)

(Italica) Valencia, 5/5.

o-ANISIDINE, PURE Janel Intil Fwdrs 91 dms (44,537 lbs)
Stuttgart Express, Rotlerdam, 4/29.
ANTIHALO DYE ACID VIOLET 520 PIN Order 20 dms

ANTIHALO DYE ACID VIOLET 520 PIN Order 20 dms (1,256 lbs) (TFL Franklin) Bremerhaven, 5/5.
BAYFERROX Leschaco 3,200 bgs (166,791 lbs) (Stuttgart Express) Rotterdam, 4/29.
BENZYL ALCOHOL FR Janel Int Fwdrs 72 dms (34,603 lbs) (Stuttgart Express) Rotterdam, 4/29.
BENZYL BENZOATE Metro Oil & Chamical 39 dms (17,196 lbs) (ER Brussel) Rotterdam, 6/5.
BETA PINENE EL Scott 130 dms (58,248 lbs) (Italica) Cadt 5/5. Cadiz, 6/5. BISALLYL ETHER TETRABROMOBISPHEN Order 720

sks (40,706 lbs) (E R Brussel) Fellxstowe, 5/5.
BURNT POWDERED Umber Order 800 bgs (39,883 fbs) (Stuttgart Express) Rotterdam, 4/29. nith Chemical 800 bgs (39,683 ibs) (Stuttgart Ex

press) Rotterdam, 4/29. BURNT UMBER Order 800 bgs (39,683 lbs) (Stuttgart Express) Rotterdamn, 4/29.
n-BUTYL ISOCYANATE Janel Inth Forwarders 32 dms (24,603 lbs) (Stuttgert Express) Rotterdam, 4/29. BUTYL METHACRYLATE Surface Air Intil 1 tnk (39,418 lbs) (ER Brussel) Felixstows, 5/5.

CALCIUM CHLORIDE 2 HYDRATE Order 16 dms (1,882 CALCIOM CHLORIDE 2 HYDRATE OFORT 10 dms (1,852 lbs) (TFL Frankin) Bremerhaven, 5/5.

CAPA 210 POLYCAPROLACTONE Interox America 78 dms (37,831 lbs) (E R Brussel) Felixatows, 5/5.

CAROB POWDER, TOASTED TIC Gums 880 bgs (44,775 lbs) (Italica Valencia, 5/6.

CASEIN Adamba Imports inil 800 bgs (88,184 lbs) (Kazling R Pulsett) Bremerhaven, 5/5.

Imlerz Pułaski) Bremerhaven, 5/5. CATALYST BILICONAS Dow Coming 27 pls (1,301 lbs) (Riverdale) La Guaira 4/20.

(Riverdale) La Guaira 4/20.

CAUSTIC POTASH SOLUTION OIL 1 bks (1,296,000 lbe)

(Jo Lind) Grangemouth; 5/4:

CERAMIC COLORS PULVERIZED Deguese 15 mix (1,082 lbe) IE R Brussel) Brenen, 5/5.

CERES RED ANILINE DYES Mobay Chemical 39 dms (2,088 lbs) (Atlantic Service) Rotterdam, 4/29.

CHALK POWOER HW St John 730 bgs (77,181 lbs) (E R

Brussel) Felixstowe, 5/6. CHLORODIFLUOROMETHANE Order 1 con (35,582 lb (Shuttgart Express) Greenock, 4/29.
Kali Chemie 2 tnk (79,366 lbs) (Italica) Barcelona, 5/5.
CINNAMIC ALDEHYDE Metro Oil & Chemical 39 dma
(17,196 lbs) (E R Brussel) Rotterdam, 5/5.
CINNAMON LEAF Oil. Medallion Inti 5 dms (2,425 lbs0
(Hoegh Carrier) Colombo, 4/18.
CITRIC ACID ANHYDROUS Order 1,980 bgs (203,705

be) (E R Brussel) Antwerp, 5/5.
CITROPAL BASE Votainer Consolidation Service 4 dms (1,772 lbs) (E R Brussel) Bremen, 5/5.
CLOVE Oll. John D Walsh 10 ctn (5,822 lbs) (Japan Ambres) Tolum Balsh 10 ctn (5,822 lbs) (Japan Ambres) Tolum Balsh 10 ctn (5,822 lbs) (Japan Ambres) Tolum Balsh

brose) Tokyo, 5/4. Order of Shipper 23 dms (12,088 lbs) (Japan Ambrose) Tokyo, 5/4.
Polarome Mig 5 dms (2,679 lbs) (Japan Ambrose)
Tokyo, 5/4.

COAL TAR DYES Bast Immont 44 bxs (36,666 lkbs) (Jadran Express) Genos, 47120. COAL TAR DYES FAST SCARLET Ampack 20 dms (3,986 bs) (Hosph Carrier) Bombsy, 4/18. COALTAR DYES TURQUOISE BLUE Jecass 80 dms

(9,738 iba) (Hoegh Carrier) Bombay, 4/18.
COALTAR & DYE MALONONITRILE Lonza 12 dms (5.952 lbs) (Stritgart Express) Bremerhaven, 4/29, COALTAR NAVILENE BLUE DYE Alba Fwdg 25 dms (6.7656 lbs) (Hoegh Carrier) Bombay, 4/18. COCONUT Oil. Order of Bhipper 4 bks (4,538,000 lbs) (Exporter) Cabu, 5/4.

2 bks (1,713,800 lbs) (Exporter) Daveo, 5/4. COLOR FORMER Mitsul 10 dms (2,181 lbe) (Japan Ambrose) Tokyo, 5/4.

brose) Tokyo, 5/4.

CREAM OF TARTAR POWDER Terteric Chemicale 440 bgs (44,974 fbs) (Argonaut) Genos, 5/5.

CRUDE PALM OIL NON HAZARDOUS Weich Holme & Clark 1 tak (44,092 lbs) (Kazimierz Puliaski) Rotterdem 5/5.

CYANURIO CHLORIDE Lonza 640 dms (80,142 lbs) (Stuttgart Express) Bremerhaven, 4/29.

CYCLOHEXYLAMINE Order 1 trik (39,727 lbs) (Kazimlerz Pulsski) Rotterdem, 5/5.

DEXTROSE MONOHYDRATE STANDARD Roquette 1,880 bgs (169,543 lbs) (Jadran Express) Genoa, 4/16.

o-DIANISIDINE DIHYDROCHLORIDE Dunlap Alpers &

Mott 260 dms (42,928 lbs) ?????? DIZAZINE ORANGE Order 10 dms (1,213 lbs) (Dart A

lantica) Felixstowe, 5/6.
DICHLORODIFLUOROMETHANE Kall Chemie 1 trik
(41,687 lbs) (Italice) Barcelona, 5/5.
Order 1 con (36,111 lbs) (Stuttgart Express) Greenock.

DIETHYLAMINOBENZALDEHYDE Order 78 dms (19,639 DETHYLAMINOBENZALDEHYDE Order 78 dms (19,639 lbs0 (Allanto Service) Rotterdam, 4/29.

DIMETHOATE TECHNICAL Order 115 dms (42,340 lbs) (8as Lend Leeder) Algedras, 5/8.

DIMETHYL BENZYL CARBINYL BUTYRAT Order 6 dms (2,112 lbs) (Jepan Ambross) Kobe, 5/4.

DIOCTYLTINNOXIDE Thorson Chemical 80 dms (19,224 lbs) (E R Brussel) Antwerp, 5/5.

DIPHENYLMETHAN44DISOCYANATE IMC Royal Athletic Ind 40 dms (21,184 lbs) (E R Brussel) Antwerp, 5/5.

DISODILIM-5-INOSINATE & GUASNYLATE A.I.

5/5.
DISODIUM-5-INOSINATE & GUASNYLATE AJINOMOTO 1200 ctr (2,646 lbs) (Japan Ambrose)
Tokyo, 5/4.
DYE INTERMEDIATES John F Kilroy 75 dms (36,045 fbs)
(Dart Alfantica) Le Hevre 5/6.
EPSOM SALTS Potash Import & Chemical 800 bgs
(82,646 lbs) (TFL Frankin) Bremerhaven, 5/5.
ETHYLENEGLYCOL DIACETATE BP Chamical Americas
40 dms (22,046 lbs) (E R Brussel) Felixstowe, 5/5.
ETHYLENETHIOUREA OIL Kallen Ind 40 bgs (2,240 lbs) E
R Brussel) Bremen, 5/5.

R Brussel) Bremen, 5/5. FATTY ACID Henkel 1 con (43,431 lbs) (E.R. Brussel)

FATTY ACID Henkel 1 Con (43,431 lbs) (E.R. Brussel)
Rotterdam, 5/5.
Henkel 1 tnk (43,122 lbs) (E.R. Brussel) Bremen, 5/5.
FATTY ALCOHOL, Ameto Agency 520 bgs (28,482 lbs)
(Bakkaloss) Rotterdam, 5/5.
Henkel 152 dms (34,013 lbs) (Kazimierz Pulaski) Rotterdam, 5/5.
FLUOROBENZENE Order 25 dms (12,235 lbs) (TFL Franklin) Bremerhaven, 5/5. ORMALDEHYDE RESIN Donex 36 ptt (48,255 lbs) (Ser Land LEader) Algedras, 5/8. GELATIN. TECH 350 Olympic Adhesive 680 bgs (38,728

Ibs) (Japan Ambrose, Kobe, 5/4.
GELATIN Blue Anchor 54 dms (12,932 lbs) (kazimierz Trans World Shpg 639 bgs (35,924 lbs) (Act 5) Sydney

4/15. GINSENG Achema 100 bgs (11.354 lbs) (Hoegh Carrier) Bombay, 4/18. GLUE Anker Labelers 9 dms (1,493 lbs) (Sluttgart Ex-

GLUE Anker Labelers & Units (1,493 lbs) (300) (300) (300) press) Rotterdam, 4/29.

GRAPHITE PRODUCTS & ACCESSORIES Nippon Carbon 68 ort (227,131 lbs) (Japan Ambrose) Tokyo, 5/4.

GUM DAMAR BATU S Winterbourne 196 bgs (32,339 lbs) (Japan Ambrosa) Tokyo, 5/4. GUM KARAYA Colony Imports & Exports 200 bgs (36,067 lbs) (Hoegh Carrier) Bombay, 4/18. Tic Gums 117 bgs (22,441 lbs) (Hoegh Carrier) Bombay,

4/18. GUM ROSIN WW Grade Order 840 bgs (48,297 lbs) (TFL Frenklin) Rotterdam, 8/8, HD HELLUM REFRIGERA TED LICUID Order 1 tnk (37,853 Beo (Stuttgart Express) Greenock, 4/29. HD OCENOL Henkel 182 dms (82,999 lbs) (Stuttgart ex-

press) Rotterdam, 4/29. ARDENER FOR ARTIFICIAL RESIN Cibe Gelgy 74 pkg (35,058 lbs) (Atlantic Service) Le Havre, 4/29. HEXYLENE GLYCOL BP Oil 2 tnk (93,740 lbs) (ER Brussel) Felixatowe, 5/5. PTANOIC ACID Order 1 bks (2,320,405 lbs) Jo Lind)

Grangemouth, 5/4. HEPTILIC ALDEHYDE OENANTHOL Miliaster Onyx Group 1 trik (32,761 lbs) (See Land Leader) Algeciras, 5/8. 1YDROXY ETHYL METHACRYLATE BP Chem Ameri-cas 40 dma (18,695 lbs) (ER Brussel, Felixstowe, 5/6.

YDROXYMETHYLTRIAZAINDOLIZINE Order 10 dms (1,168 lbs) (TFL Franklin) Bromerhaven, 5/5. ICHTHAMMOL USP XXX Panalpina 25 dms (12,125 lbs) (TFL Franklin) Bremehaven, 5/5. INCOLUBLE SULPHUR Order 55 bgs (3,069 lbs) (Japan Ambrose) Kobe, 5/4.
INDIAN GUM OLIBANUM LD Maharal 20 cs (2,469 lbs)

(Sea Land Adventur) Algeotras, 4/30, ISOBUTYAIC ACID Order 78 dms (36,111 lbs) (TFL Rotterdam, 4/29.
ITACONIC ACID Order 720 bgs (40,479 lbs) (ER Brussel)
Rotterdam, 5/6.
JAPAN WAX, GENUINE Order 75 otn (8,598 lbs) (Japan

Ambrose) Kobe, 5/4. KOLA NUTS, DRY D Steengrafe 687 bgs (89,854 lbs) (Appoville) Abkijan, 4/22. KURMURA Deep Foods 201 bgs (4,431 lbs) (Hoegh Car-

rier) Bombay, 4/18. AMINATES PHENOLIC MELAMINE Oliner Fibre 14 pli LAMINATES PHENOLIC MELAMINE CINST FIOTS 14 pit (28,605 lbs) (Hoogh Carter) Bombay, 4/18. LIME OIL Order 10 drins (4,381 lbs) (Tans) Abldjan, 4/24. LINALOL BYNTHETIC Order 79 drins (33,514 lbs) (Atlantic Service) Ls Havra, 4/29. LINALYL ACETATE Order 79 drins (33,614 lbs) (Atlantic

Service) Le Havre, 4/29. LODUST BEAN GUM PL Thomas 220 bgs (11.204 lbs (Argoneut) Genos, 6/5. LONA FAST TURQUOISE BLUE RBL Detai 60 dms (1,204 lbs) (Hoegh Carriero Bombiny, 4/18.

MAGNESIUM POWDER Hart Metels 24 dms (8,254 lbs) (Dart Atlantica) Felixatowe, 5/6.

MARINE LIPID CONCENTRATE Altransport 5 pkg (2,293 ibs) (Dart Atlantica) Bremerhaven, 5/6. MENTA PULEGI Herbartum 32 bgs (1,792 lbs) (Jadran

Express) Rijeke, 4/16. MICRONIZED BURNT UMBER Order 2,400 bos (119,049 bis) (Stuttgart Express) Rotterdam, 4/29.

MOLYBDATE ORANGE Harold Papper 400 pkg (20,834 lbs) (Japan Ambross) Tokyo, 5/4.

MOROCCAN CORIANDER SEEDS Order 360 bgs (39,883 lbs) (Argonaut) Casablanca, 5/5.

NAPTOCIT ZMBT Watt Terminal Warehouse 800 bgs (28,652 lbs) (Kazimierz Pulasiki) Bremertsaven, 6/6.
NIACINAMIDE Lonza 300 dms (38,045 lbs) (Stutßtgart Express) Bremertsaven, 4/29.
NN-DIMETHYLANILINE Order 90 dms (43,165 lbs) (ER Brussel) Antwerp, 5/5.
NUTMEG OIL Fritzechs Dodge & Oloott 24 dms (9,954 lbs) (Hosph Certs) Podern 4/18.

(Hoegh Carrier) Padang, 4/18. OLEORESIN BLACK PEPPER Order 21 dms (3,089 lbs) (Hoegh Carrier) Cochin, 4/18. DLEORESIN CELERY Order 11 dms (4,870 lbs) (Hoegh

Carter0 Cochin, 4/18.
OLIVE OIL Berto Imports 19,741 cs (449,904 lbs) (Jadran Express) Leghorn, 4/16. Joseph Rutigliano 900 dms (41,667 lbs) (Italica) Naples

L Della Cella 72 dms (34,762 lbs) (Italica) Cadiz, 5/5. College Colleg Triunfo import & Export Food 100 crt (3,858 lbs) (At-

lantic Service) Rotterdam, 4/29. Gina Imports 1,000 cs (36,817 lbs) (Sea Land Adventure) Algeoiras, 4/30. OLIVE OIL, EXTRA VIRGIN Fara San Martino 1,025 cm

(46,100 lbs) (fields) Naples, 5/5.

ORTHO NITRO CHLOROBENZOL Leschado 1 tnk (41,579 lbs) (Altanito Service) Bremerhaven, 4/29.

OXYTETRACYCLINE HYDROCHLORIDE Boehringer Ingelheim 40 dms (4,762 lbs) (Jadrasn Express) Rijeke, 4/16.

PALM KERNEL OIL Order of Shipper 2 bks (2,235,870 lbs) (Sycorter) Peek Guidano, 5/4

PALM KERNEL OIL Order of Shipper 2 bks (2,235,870 lbs) (Exporter) Pael Gudang, 5/4.

PARAFFIN WAX Dura Commodities 720 bgs (40,873 lbs) (Dart Atlantica) Felixstowe, 5/6.

PARAFORMALDEHYDE TR America Chemicala 18 pit (41,032 lbs) (Sea Land Adventur) Algactras, 4/30.

180 PEARL BONE GLUE Olympic Adhesive 348 bgs (38,903 lbs) (Japan Ambrose) Kobe, 5/4.

PEARL BONE GLUE, CHINESE Olympic Adhesive 348 bgs (38,903 lbs) (Japan Ambrose) Kobe, 5/4.

PENICILLIN FC Gerlech 1,277 ctn (67,426 lbs) (Stuttgart express) Greenock, 4/29.

PHENOL METHANE MCI 4 dms (1,940 lbs) (Dart Atlantica) Felixstowe, 5/6.

lantica) Felixstows, 5/6. PHENOXY ACETIC ACID Bristol Myers 880 bgs (51,023 PHENDAT ACETIC ACID Bristol Myers 880 bgs (51,023 lbs) (Kazimierz Pulsski) Rotteram, 5/5.

PHENYL ACID Unimodal 80 kgs (9,348 lbs) (Dart Amtlentica) Fellixstows, 5/6.

PHORWITE REU LINCUT ANILINE DYES Mobay Chemical 30 dms (3,591 lbs) (Atlantic Service) Rotterdam, 4/29.

PIOLOFORM BL 18 Wacker Chamicals 275 bgs (12,428 ibe) (TFL Franklin) Bramerhaven, 5/5.
POLYCYCLOPENTADIENE RESIN UCC Products 24 bri
(11,005 ibs) (Oart Atlantics) Felixstowe, 5/6.
POLYETHYLENE GLYCOL Order 500 bgs (23,302 ibs) (TFL Franklin) Bremerhaven, 5/6.
POLYTETRAFLUOROETHYLENE SYNTH RE Monte-

dison 200 dms (11,884 lbs) (Jadran Express) Genos, 4/18. POLYVINYL ALCOHOL Marubeni America 80 pkg (85,010 lbs) Japan Ambrose) Kobe, 5/4.

POTASSIUM CYANIDE GRAN SOLID Degussa 1,440 dns (158,290 lbs) (Stuttgari Express) Bremerhaven, 4/29.

POTASSIUM NITRATE ICC Ind 360 bgs (40.318 lbs) (Kaz-

imierrz Putaskij Bremerhaven, 5/5.
PROPYLENEDICHLORIDE DICHLOROPROP Leschaor 1 tnk (44,974 lbs) (Kazimlerz Pulaski) Rot

PROTEIN CONCENTRATE Trugman Nash 2,264 bgs (126,886 lbs) (Act 6) Melbourne, 4/15.
PSYLLIUM SEED HUSKS Order 475 bgs (43,982 lbs)
(Hoseph Carrier) Bombay, 4/18.
PYRIDOXINE HYDROCLORIDE Order 20 dms (1,301 lbs)

REFRIGERANT GAS Order 2 con (70,680 lbs) (Stuttgert Express) Greenock, 4/29. REGROUND PTFE POWDER Mitsut 110 dms (25,706 lbs)

Japan Ambrose) Tokyo, 5/4.

ROCHE NIACIN USP FCCM Transcontainer Transports 900 dms (109,128 lbs) (Stuttgart Express) Bremerhaven, 4/29.

ROOF CEMENT Benson Hanson Mig 2,025 pts (98,050 lbs) (Riverdals) La Guaira, 4/20.

ROSA CHLORIDE Order 30 dms (6,071 lbs) (Atlantic Service) Rottsertem, 4/29.

vice) Rotterdam, 4/29. ROSEMARY K I Litster 19 bgs (2,388 fbs) (Sea Land Leader) Algecires, 5/6. 3ABUDANA India Bazaar 10 bgs (1,014 lbs) (Hoegh Car-

SABUJANA Intuit Dezais Inin Bombay, 4/18. SACCHARIN SODIUM Silvey Shpg 320 pkg (37,919 fbs) (Japan Ambrose) Kobe, 5/4. SALT Richter Brothers 898 pcs (40,172 lbs) (ER Brussel) Le Havre, 5/5. SELENIUM DIOXIDE Alloychem 28 dms (2,405 lbs) (8\u00e4utt-

SELEMUM DIOXIDE Albychem 23 ofms (4, nuo iday (5) utr.
gart Express) Bramathewen, 4/28,

SELENIUM PELLETS W POLYETHYLENE Albychem 2,
pit (2,399 lbs) (Japan Ambross) Tokyo, 5/4.

SIPERNAT DIONY North American Silica 600 bgs
(20,603 lbs) (Stuttgart Expres) Bramathaven, 4/29,

SODIUM ALGINATE Kelco 800 sks (42,000 bbs) (Dart
Attantica) Februtows. 5/6.

Atlantica) Felixstowe, 5/6.

SODIUM BENZOATE POWDER & FLAKE JM Rodgers
880 bg (44,775 lbs) (ER Brussel) Rotterdam, 5/6.

SODIUM BROMATE Ameribrom 564 dms (116,122 lbs)

SOPIUM BROMATE Ameribrom 584 dms (118,122 bet)
(Arponaut) HAlls, 5/5.

SODIUM CYANIDE GRAN SOLID Degussa 200 dms
(87,055 lbs) (Surtigart Express) Bremerhaven, 4/28.

SODIUM FORMATE Kingeley & Keith 20 plt (45,592 lbs)
(Sea Land Adventur) Algacitis, 4/30.

SODIUM GLUCONATE Alignitis A: Express 600 bgs
(206,836 lbs) (Kazimierz Puleski) Rotterdam, 5/5.

SODIUM METABISULPHITE Browning Chemical 350 bgs
(30,352 lbs) (Kazimierz Puleski) Promerhaven, 5/5.

SODIUM METABISULPHITE Browning Chemical 400 bgs
(44,775 lbs) (Kazimierz Puleski) Bromerhaven, 5/5.

SODIUM METABILICATE Browning Chemical 400 bgs
(44,775 lbs) (Argonaut) Naples, 5/5.

SODIUM PERSULPHATE K&M Gustom Brokers 720 bgs
(39,642 lbs) (Stuftigat Express) Bromerhaven, 4/28,
SODIUM PRODUCTS OXINIZING MATL Nachem 20 paid
(2,397,bs) (Dar Agentics) Brein; erhapin, 5/61.

SODIUM SILCATE S&R Distr. 16 plt (33,842 lbs) (Philipperson) 1984.

SORBITOL EM Ind 9 bxs (43,475 lbs) (TFL Franklin) Bremerhaven, 5/5, STABIL HAROCHEM POPE LEADPHTHALA American KK Chemical 1200 bgs (46,738 lbs) (ER Brussel)

KK Chemical 1200 bgs (46,738 lbs) (ER Brussel)
Rotterdam, 5/5.

SULFAMETHAZINE AJ Murray 180 dms (22,024 lbs) (Jadran Express) Rijeka, 4/18.

SULFAMETHAZINE Universal Trenscontinental 320 dms (39,164 lbs) Jadran Express) Rijeka, 4/16.

SULFISOXAZOLE Gyma Laboratories 100 dms (12,236 lbs) (Jadran Express) Rijeka, 4/16.

SULFHUR HEXAFLUORIDE Montedison 165 cyl (39,032 lbs) (Jadran Express) Legitom, 4/16.

SYNTHETIC COAL TAR DYES Jecasa 70 dms (13,102 lbs) (Moeab Carrier Bombsv. 4/16.

STATIFETIC COAL TARY OYES Jecaes 70 dins (13,102 bs) (Hoegh Carrier) Bornbay, 4/18.

SYNTHETIC RESIN Arlington Warehouse 42 pti (42,048 lbs) (Kazimierz Pulaski) Bremarhaven, 5/5.

Mobay Chemical 838 bgs (44,832 lbs) (TFL Franklin) Rottardym, 5/5.

Montedison 400 dins (28,660 lbs) (Argonaut) Genos, 5/5.

Woodstock Wire Works 1 pit (1,168 lbs) (Dart Allantica) Felixatowe, 5/8.
SYNTHETIC RUBBER Enichem 32 pkg (89,177 lbs) (Sea

Land Adventur) Algectras, 4/30.

Montedison 140 pkg (245,198 fbs) (Sea Land Adventur)
Algectras, 4/30.

Order 32 bxs (79,145 fbs) (ER Brussel) Antwerp, 6/5.

SYNTHETIC RUBBER OUTRAL TER 038 Montedison 22 bxs (45,287 lbs) (Argonaut) Leghorn, 5/5. SYNTHETIC RUBBER JSR Mitsul 480 bgs (44,092 lbs) (See Lad Adventur) Algedras, 4/30.

TARTARIC ACID Joseph C Murray 432 bgs (44,603 lbs) (Argonaut) Barcelona 5/5. TETRAPOTASSIU PYROPHOSPHATE Saf Customa Broker 720 bgs (79,952 lbs) (Bakkoloss) Rotter-

ETRASODIUM PYROPHOSPHATE Saf Customs Bro-ker 800 bgs (44,797 lbs) (Bakkafosa) Rottardam,

5/5.
THIOGLYCOLIC ACID Rone Peeri 78 dms (44,785 lbs) (Kazimierz Puleski) Bremerhaven, 5/5.
THIOUREA DIOXIDE Degusse 120 dms (27,804 lbs) (Stuttgart Express, Bremerhaven, 4/29.
TITANIUM DIOXIDE Dum Marketing 1,800 bgs (80,248 lbs) (Sea L?and Adventur) Algedras, 4/30.
TITANIUM DIOXIDE Leschaco 5,320 bgs (278,267 lbs) (Stuttgart Express) Rotterdam, 4/29.
NL Ind 6,400 bgs (331,575 lbs) (TFL Franklin) Rotterdam, 5/5.

dam, 5/5. Superior Materials 800 bgs (40,124 lbe) (Sea Land Adventur) Algedres, 4/30. Tioxide 720 bgs (41,072 lbs) (Sea Land Adventur) Alge-

Finnikan 720 bgs (39,381 lbs) (Kazimlerz Pulaski) Bremerhaven, 5/5 TANIUM DIXOIDE TITANOX NL Ind 3,500 bgs (181,328

lba) (Atlantic Servica) Rotterdam, 4/28.
900 bga (139,882 lba) (Kazimierz Pulaski) Rotterdam, 6/5.
WTC Air Freight 6,300 bgs (325,002 lba) (Stuttgart Express) Bramerhaven, 4/29.
TMA FC Gerlach 35 kgs (2,515 lbs) (Stuttgart Express) Greenock, 4/29.

Greenock, 4/29.
TRICHLOROTRIFLUOROMETHANE FORANE Order 1
tnk (39,683 lbs) (TFL Franklin) Rotterdam, 5/5.
TUNG Oil. Amber 1 bks (330,690 lbs) (Jo Lind) Grange-

mouth, 5/4.
TURPENTINE William & Newton 73 ctn (3,723 ibs) (Dart Atlantica) Feitisetowe, 5/6.
ULTRAMARINE BLUE Hilton Davis Chemical 800 bgs

OLTRAMARINE BLUE Hilton Davis Chemical 800 bgs (45.194 lbs) (TFL Franklin) Rotterdem, 5/5.

VEGETABLE CARBON, ACTIVATED American Nosit 20 plt (40,697 lbs) (Stuttgert Express) Greenock, 4/29.

VINEGAR Berlo Imports 420 cs (10,362 lbs) (Jadran Express) Leghom, 4/16.

Patrick Powers 980 pkg (10,467 lbs) (Jadran Express)
Genos, 4/16.

6 plt (17, 199 lbs) (Jadran Express) Genoa, 4/16. VAX Henkel 800 bgs (40,917 lbs) (TFL Franklin) Bremer haven, 5/5.
WAXY CATIONIC STARCH National & Chemical 702 pkg

(39,465 lbs) (Stuitgart Express) Greenock, 4/29, YLENE Royal Athletic and 20 dms (10,582 lbs) (ER Brus sel) Antwerp, 5/5.

XYLENOL, Rherus Transport Inti 152 dma (74,727 lbs)
(Bakkefoss) Rotterdam, 5/5.

2,4-XYLINDINE Leschaco 1 tnk (39,272 lbs) (ER Brussel)
Antwerp, 5/5.

# Grace to Open Lab **At Washington Center**

W. R. Grace & Co. last week opened a new 70,000-square-foot laboratory at its Washington Research Center headquartered in Columbia, Md. Construction of the two-story laboratory began in late 1984.

The new facility is part of an \$8.5 million. 90,000-square-foot laboratory expansion, which includes a ceramics applications laboratory, new pilot; and laboratory space for process development, and new nomes for re-search efforts in biotechnology, catalysis and electrochemistry.

According to Dr. F. Peter Boer, president of Grace's Research Division, "This expansion reflects Grace's long-term commitment to expand its research efforts with the objective of both developing new product lines in high technology businesses and generating new products for Grace's existing specialty chemical operations."

The new facility will satisfy the Washington Research Center's R&D space requirements until the 1990's. Research at the center is orimarily conducted for Grace's specialty

UM PERSULPHATE K&M Gustom Brokers 720 bgs .

(39,842 be) (Stutgest Express) Bromertieven, 4/28, UM PRODUCTS OXDIZING MATI, Nachem 20 pag. (2.337 tie) (Dari Apinica) Bromertieven, 5/5 .

(3.37 tie) (Dari Apinica) Bromertieven, 5/5 .

(3.38 tie) (Dari Apinica) Bromertieven, 5/6 .

(4.38 tie) (Dari Apinica) Bromertieven, 5/6 .

(4.38 tie) (Dari Apinica) Bromertieven, 5/6 .

(4.38 tie) (Dari Apinica) Bromertieven, 5/6 .

(5.38 tie) (Dari Apinica) B

chemicals units.

June 9, 1986

# CHEMICAL PRICES

WEEK ENDING JUNE 6, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bld and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

						سسر
			Alumi	ne, activated, gran., 100-lb. bgs	"	
<b>A</b>		1		40,000-lb.mlm.c.l., works.to to sised basis to		_
A		- 1	Casc	00-tb. bgs., same besis to		_
			hyd	irated, white, bulk, same bu	<b>+</b>	
<b>F</b>		ľ	'	sig	n 190.00	_
		ا جسیت	Altumb	00-lb. bgs., same basia to num acetate, basic, dms., i.c.		_
Ables siberica oil, onsib. 1	5.00	- [	7,00	works	3.25	-
Acetaldehyde, 99%, tanka, frt. ald. Ib.	.37	-	Alumi	num chloride, anhyd., soin., 500		
Prices 1c. higher in West.	····D			600 lb. dma., c.l., t.l., work		.5
kostaminophen (see N-Acetyl-p-aminopher kostaniide, tech, flaked, bgs, t.t., f.c.b.	IOI)	-	hudi	frt. equald		
worksb	1.29	-	56/1	ni-buik bins, same basis i	b48	.6
cetic ecid, tech., tanks, divd. E 8	.25	- ]	Alumi	num chloride, comi., aoin., 32	, 45.00	_
cetic anhydride, tanks, dwd. E ib. Acetic anhydride prices 1 c. higher in Wes	.431/2	-		tenks, works 100 lb dms., c.l., works 100 lb	s. 15.00 s. 12.00	_
cetoscelaniide, dms., t.i., divd ib.	1.29	-	l nor	n-ret, dms., same basis , 100 lb	8. 20.00	_
cetogcet-o-anisidide, dms., t.i.,			Alum	inum formate, dibasic, ilq. 8	%	
divd	2.70	-	Abumi	Al <sub>2</sub> O <sub>2</sub> t.l., works	b55	_
cetoacet-o-chioroeniide, dms., t.l., divdb	2.85	-		inum hydroxide, dried, gel. N		
Acetoacet-o-toluidide, oms., t.i.,			١	76-lb, dms., c.l., t.l., works. l	b. 2.76	3.
dtvd	1.58	-	Atum	inum metal, 991/1% or more, 50-		
Acetoacet-m-xylidide, dms., t.l., divdb.	3.33	_		pigs., 30,000-lb. lots, fi		
Acetone, tanks, divd. E	.25	_	Alum	inum oxide emorphous (see Alu	mina, calcined	Ŋ.
divd. Zone 2 (Calif.)	.27	-	Alun	ninum paate, leating grad	le,	
divd. Zone 3 (W. of Rockies exclud- ing Calif.)	.27	_	1	81d.,lining, 2,400 lb. lo	18.	_
Acetonitrile, tanks, frt. alid b.	.53	.541/2	link	divd Ing, extra-fine, same basis		2.
Acetophenetidin (see Phenaceth).			Alum	virum phenoisulfonate, purif., 10	00-	
Acotophenone, tech., tenks, f.o.b.	.76	.65		klio dms t.L	dlo 6.46	
worksib. pertume grade, extra, cnsib.	./6 2.15	.00	AMI	inum powder, leafing grade, s lining, 2,400 lb. lots, dvd	ita. 1b. 3,17	
l-Acetyl-p-aminophenol, c.l., t.l.			өх	tra fine, lining, same basis	lb. 4.04	
works	5.95	6.64	Alum	ilnum stearaie, bgs., c.l	lb. 1.25	1.
Acetylene black, Imp., 60% com- pressed, 12½-lb. bgs. c.l., t.l.			Alun	nnum sulfate, comi., grd., 100 gg., c.i., works, irt. equa		
frt. extra	.98	-	1	basis 17% Al <sub>2</sub> O <sub>3</sub> East and G		
100%, 25-lb. bgs., same ba-	Der.		1	Coasts	ton 105.00	
sis	.9512	-	11-	West Coast	ton 217.80	
works	.97	-		į., tanks, N.E. same basis on-free, dry, bgs., c.l. sa		
Acetylsalicytic acid, USP (see Aspirin). Acetyltributyl citrate, bulk, l.o.b.	_			Dasis	ton 300.00	
Acetylthoutyl citrate, bulk, f.o.b.	1.28	_	, lk	a., tanks, same basis	tan 225,00	265
Acetyltriethyl citrate, bulk, 1.o.b.	1.50	-	Alul Ami	minum sulfate, USP, gran., dms Inoacetic acid, USP, dms., 20.	000	.337
works lb.	2.06	-		IDS., 1.0.D. WOTKS	.lb. 2,12	
Acrolein, tech., tanks, works ib.	.62 1.00	-	te	ech t.l., same basis	. ю. 1.88	
Acrylamide, solid, 1 l. works lb. soln., 100% basis tanks, works lb.	.74	.77	P-A	minobenzok acid, 1,000 kilos more, dms., f.o.b. works.	s or kilo 9.60	10
Acrylic acid. glacial, reg., tanks.			2-A	mino-4-chiorophenoi dry and g		"
divdlb.	.67	-	1	14,000 los, or more, int. alk	3. ib. 5.79	
tech., tanks, frt. ald	.60 .39√₂	.461/2	Am	inoethyl ethanolamine, tanka, collect.		<b>v</b> s :
Acrylonitrile-butschene-styrene resin,	-00.4		N-A	Aminoethyl olperazine, tanks, f.		
high-impact, nat., t.l., dms.,	1.05	1.09	I .	frt. collect	lb 1.05	1
medium-impact, nat., same basis lb.	1.05 .94	1.09 .9B	2-/	Amino-2-ethyi-1,3-propane		,
low-impact, nat, same basis lb.	.75	-	į.	dms., t.l. f.o.b. works	1.02	
Adipic acid, resin grade, bulk, hopper	E-7	_			الموزد بالأواد	e services
cars, frt. equaldlb. bgs., ts., c.l. frt. equaldlb.	.57 .59	-				
Agar USP, powd., 60 to 100 mesh.,						g w
dmslb	9.50	-				<u>- 1</u>
Alcohof, syn. C-8 to C-10, tanks, f.o.b. works	.38	_	I			1
C-12 to C-13, tanks, divdfb.	.38 .57	.59				_ 1
C-14 to C-15, tanks, divd lb.	.57	-	]			•
C-16 to C-18, tanks, chvd ib.	.60	- - 70	<b> -</b>			=
Aldehyde, C-6, dms	4.10 1.95	5.70		THE TERMINOLOG	<u>ay of th</u>	<u>1E</u> C
C-8, dms	4.30	6.30		a falab		
C-10 dms	4.30	5.35		a/sipha alid /ellowed	C./Centriga	
Algin (see Socilum alginate.) Alka'i blue, dry flushed, 110-b, done			<b>     </b>	alid./allowed amorph./amorphous	cbys./carbo	oya
Alkali blue, dry, flushed, 110-lb, dms, divd	3.72	3.83	11	AMP/American melting	c.c./aubic c CD/comple	inuni.
Alkali blue prices 1c. higher W. of	4.16	0.00		point	alured	1017 CH
Rockies.			11	anhyd./anhydrous AOAC/Association of	c.l.f./cost in	16UFBI1
Aliapico Guatemalan / Honduran,	1.00	-		Official Agricultural	freight	Ł
bgsb. Jamaican, bgsib.	1.05	_	\ <b>1</b>	Chemists	c.i./carload cns./cans	,
Allyl alcohol, Tanks, I.o.b., Bayport,			-	-sortq əldəlisva\.a.q.s	COMI./COM	merci
Texkb.	90	-		phoric acid	conc./cond	:entra:
Affyl bromide, 500-kilo dras, 2,000 lbs. or more, works	5.50	_		approx./approximately artit./artificial	cp/chemic	
or more, worksb. Allyl caproate, 25-lb. cns	3.90	4.50		ASTM/American Soci	cps./cent/; cryst./crys	
Afylichlonde tunks, f.o.b. works lb.	65	-		ety for Testing &	C9./C8808	
Ahyl is gihicoyanate, botaib. Almood oil artii hiter (see Baraaide)		6.90	- } ]	Materials	ctns./carto	
Almond oil, artil., bitter (see Benza'deh Almond oil, nat. bitter, NF 1.1.p.a.	ilna:j		_ j <b>i</b>		cyls./cyline	2978
bo15	3.50	3.60		b/bets		
Alon Corp. os	. 1.24	1.50	11	Be/Baume bbls./barrejs	d-/dextro	
, Aloo, Capa, es	2.00	2.75		b.g./beta-gamma	dbl./doubl denat./dei	
Curaceo, kgs	2.50	2.10	Į į	bgs./bags	dest-dist	
Curacea, kgs		-	11	bis./bales	tively di	istilled
Aloun NF, dras	008	8.70	' []	b.p./bottles Inlog gallical, q.d	di/dextro-	
C1.11. Works 100 kr	ı. 35 ON	· _	] [	b.p.l./bone phosphate	dist./distit distr./dist	
FCC DOAD, liber dans, wedget00ths	⊾ <u>የ</u> ፍብሳ		l I	of lime	divd./deli	heted
AMIN, Dolass'um, tech, gran, bos., c.i			- 11	b.r./boliing rango bas./boxea	dins./drun	ua .
t I., works 100 lbs	35.00 55.00		[-]		dom./dom	.es#Ç

_	والمساور والمساور والمساور والمساورة	
Πi	2-Amino-2-methyl-1-propanol, 95%,	Aniso seed, Egypt, bg9 ib
<b>=</b>	tanks to b works	Turkish bys ID. 62
Ш	- Amiesphopal data I O N. CARROLLA.	I o-Anisidino, into . dina . divo ib 2 27 👢
	- Aminophenol I I dms., f.o.b.	p-Anisidina, imp., cast solid, dara., works
117		Hokes same basis Ib. 2.25
B i i	p-Aminosalicylic acid, USP, 50-kilo dms. t.l. kilo 18.50 -	Anthraniic ackt, punt., 99% onun., dms., 11., frt. alld
	Ammonia, anhyd., fertilizer, wholesale, tanks, divd. Midwest termi-	Antimony fluoboxato, liq. conc., 175-lb
_	nals ton 155.00 170.00	Antimony motal bulk, c l., mines lb. 1 29 1.5
1	tankcars, f.o.b. Gulf Coast ton 90.00 95.00 agusous, 29.4% NH <sub>s</sub> , anhyd. basis.	Antimony oxide, high-lint, bgs . C 1 . Ift
-11	tenke frt equald, E. of Rock-	Antimony trichloride, nihyd , solid,
- 11	leston 260.00 315.00 Ammoniacal liquor (see Ammonia, aqueous).	Apomorphine hydrochileride, NF, bots.,
Ш	Ammoniac sal, galvanizing grade, ogs.,	j gin 1500 -
Ш	C.I., (.o.b. works 100ibs 28.60 - Ammoniac sal. white (see Ammonium chloride comi.).	Apricot karnel oil, dms lb 2.05 - Arabic gum, powd , bbis lb 1.85 2:
11	Ammonium biborate, gran., dms., c.i.	spray dried (0 2.00 2.
	works	USP'grade
11	Ammonium bicarbonate, 300-lb. IIb.	notroloum, aromatic)
	dms., c.l., works 100 lbs. 26.00	Arsenic, crude (see Arsenicus Irloxide). Arylid, red (see Napihol, arylid red).
11	Ammonium bichromete, photo-litho	Arsenious trioxide, crudo, 95%, bulk.
- 11	grade, gran. 100-lb. dms., l.t.l. workslb. 2.00 -	Asbestine (500 Talc. fibrous).
. 11	Ammonium bifluoride, bgs., t.l.,	Ascorbic acid, USP, 100 kilos, dvdkilo 9.00 to
- 11	works 1b	Ash, black (see Barlum sulficie).
	dms., c.l., t.l., f.o.b. works . lb. 1.31 -	Asphalt gilsonite, (see Gilsonite) Asphalt petroleum cutback, tanks, E.
	Ammonium chloride, white, tech., fine gran., bgs., c.l.,	Coast
_	WORKS1000S. 10.00 -	emulsion, tanks, tankwagons, E. Coastgal 68
	USP, gran., dms	steam-refined, 40-300 penatration,
	dms. f.o.b. worksb. 2.79 -	tanks, tankwagon ton 170 00 steep roofing grade, bulk tankwag-
'	Ammonium dimolybdate, approx. 85%, 24,000 ibs. or more . ib. 5.48 -	I 00
	Ammonium fluoborate, tech., dms.,	Aspirin, USP, cryst., powd., 250- lb.dms., c.l., f.o.b lb. 1.95
'	c.l., t.i., works, irt. equald lb. 1.79 - Ammonium heptamolybdate, cryst.,	10% starch granulation, white, 250-
. '	dms., 24,000 lbs. 1.o.b.	ib. dm, c.l., f.o.b
	Ammonium lauryi suriate, lanka, f.o.b.	hasia
55 49Vz	works	Freight equald, shipt, identical quantity over standard from N.Y., Phila., Midland, Mich., Chicago
53	Ammonium Ilgnin, sulfonate, bulk, f.o.b, Hogulam, Ore ton 72.00 -	Louis. Atropine sulfate, USP, bots oz 10 00 1
	Ammonium nitrate, dom., fertilizer	Avocado oil, dms lb. 4 00
•	grade, 33.5% N, bulk, S.E. divdton 150.00 155.00	Azeleic acid, tech., 50-lb. bgs., t.1, c.1, divd
•	Ammonium oxellate, tech., line. gran.	Azo orange, bbls., dlvd
•	300-lb. drns., t.t., f.o.b. works	Azo yellow, 10 G, bgs., dlvd. E af Rocklesb 4 40
	Ammonium pentaborate gran. bgs.,	Azo G yellow pigment, bgs., same ba-
50	c.l., works	sis fb. 2.45
	per ib. higher. Ammonium persuitate, 225-ib. dms.	
-	24,000 lbs. or more, f.o.b.	
	works	
_	Ammonium phosphate (see DI- and monoammonium pi	los-
.14	phates). Ammonium silicofluoride, dms. c.l., t.l.,	
_	works	Bacitracin, USP, non-sterile, one billion
	Ammonium sulfate, ig. gran., bulk, c.i., workston 74.00 79.0	pulls or more million units 0.30 Borblial, NF, 50-kilo drus., clivd kilo 22.50
_	std., comi., bulk, f.o.b. works ton 73.00 -	Barbital-sodium, NF, 50-kilo dnis.
.37	toch., bgs., c.l., t.l., works ton 108.00 120.0 Ammonium suifide, ikq., 40-44% tanks,	Banto, dry-grd Southern, off-color.
	100% basis, frt. equaldton. 460.00 -	coarso, bgs., c t., t.u b. hnites its
_	Ammonium sulfocygnide, tech. (see Ammonium thiocygnia Ammonium thiocygniate, tech., cryst.,	water-grd , white, bgs , c,l , 13
-	bgs., c.i., works lb. 1.02 -	untslauched, extfa-line, pigment
-	tech soin., 50%, tanks, fri.	grade, c.l., f.M.) works from 180 00 Barium carbbitate, priesty, bulk, c.f.,
-	Ammonium thiosulfate, photographic,	works, lit, organid its
5.00 7	60%, tanks, f.o.b. works ib	bgs , sumo bashi ili. 209 photo grado, bgr , sumo basis ton 510,00
•	bulk	Barkun chlorato, 100 Ri dins , 1-10
-	Arnyl acetate, primary mixed isomers, tanks, divd	dm. Ints. works Ib 1.04 Britain chloride, techs., cryst , bgs . c l.,
	Amyl elcohol, primary mixed isomers,	Works
0.10	tanks, frt. ellü lb	io Barnin etilorido, pulli, eyral 400 lb.
-	p-tert-Amylphenot, bulk, workslb	3 dins., works 15. 3.70
_	Amyris off, dms	25 Outline munichydrafo, 55 lb. bgc, c.t., 1.l. f.o.b. works, 100 lbs 46.00
	USP, dms	00 cs.juhydrato, cryst., 1894., suuto
-	Angelica root oil, bols	12 Dankon Okrato, 100 Hs. bgs, tt.,
-	Anise of, dms kilo 11.75	Bodom okrato, 100 to, bigs 11., works
M		
_		

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE C./Centrigrade cbys./carboys c.c./ouble centimeter CD/completely den-atured c.i.f./cost insurance freight c.i./carload cns./cars

F./Fahrenheit 1.a.s./free alongalde fermentetic

2.15 2.50 9.25

_			
Barium oxide, grd., dms., c.i., dlvd 100 lbs. tote bins, same basis, 100 lbs.	31.25	_	1
Dendin peroxide, full-ip, ama, c. i. i.i.	30.00	-	1
works	.30	-	
dest	1.05 inc fixe).	-	
Barkim sulfate, USP, X-ray diagnosis grade, powd., 25 kilo bgs.,			Ĺ
10,000 kilo lots	.581/2	-	ľ
works. ton Basil Egyptian	480.00 .75	.85	8
French	.88 90.00	.90	Во
Basil oil, Grand Vertfb. Battery acid, t.l., f.o.b., workston	45.00 52.00	70.76	1
Bauxite, calcined, refractory grade, 874-88% ALO <sub>3</sub> , Baltimore &	229.28	_ [	Øro b
Bay off, NF, 55-60%, dms	10.50 2.70	16.00 3.00	Bro
Baybarry wax, bgs	3.10		
white, slabs, 100-lb. ctris ib. yellow, bricks, 100-lb. ctris ib.	3.05 3.00	3.20 3.10 3.10	Bro
yellow, stabs, 100-to, oths, ib. Bentonite, dom, c.i. bags, f.o.b.	2.95	3.05	But
workston Benzaldehyde, NF, dmslb.	43.50 1.26	=	1,4
Prices are 4c. per lb. higher West of	.73	.83	But
the Rockies. Benzens, Indust. or nitration, barges, f.o.b			r-8
Baton Rouge, La gal. Baytown, Tex gal.	.90 .90	Ξ	n-B
Beaumont, Texgal. Cattettaburg, Kygal.	.90 .99.	-	sec ter
Chicago district gal. Chocolate Bayou, Tex gal.	.90 .90	-	Bu
Clairton, Pagal. Corpus Christi, Texgat. Deer Park, Texgal.	.90 .90	- 1	Bu
Houston district, spot	.90 .82	.86	Bu Bu
Benzene hexachloride, 99% gamma isom	.90 er (see Un	dene).	n-f
Benzidne orange, powd., bgs., divd.lb. ilq., containers, divd ib. Benzidne vallow AAA benz edud. ib.	4.90 3.36	8.70 3.89	Bu
Benzidine yellow, AAA, bgs., divd lb. AAOA, bgs., divd	5.80 7.35	6.05 7.40	n-i
Benzocaine, USP, dms., 1,000 kg. lots, 1.o.b.,works kg.	5.95 10.00	6.20 11.50	. ,
Benzodihydropyrone, drnsib. Benzolc acid, tech., bgs., c.l., t.l., f.o.b.	12.50	-	Bu
works	.55	.58	Bu
6ks	1.73 1.80	1.75	Bu
Benzolngum, Sumatra, ca	3.50	3.60	. 1
more, f.o.b	7.45		ó dia di
workskgs. 2,2,-Benzothlazyi disulfide (see Mercapi	4.35 obenzothi	_ azyl dîşul-	
fide). Benzotriazole, flake, dms., 1,000 lbs.			Bu
powd., dms., 1,000 lbs. or more,	6.10	-	ter
same basis	6.20	-	, I
more, same basis b. Benzotrichforide, refd., dms. t.l., frt.	9.90 .87	_	8u Bu
equald	.80 .6312	= 1	1
tanks, irt. equald	.74Vz	.75	1,3 Bu
10,000-lb. lots or more, bgs., works, frt. equald lb.	2.35	6.98	Bu
paste, 50% and 56% formulations, drns., palls, frt, equald, lb.	1.71	1.95	Bi n-l
Benzyl acetate, dmslb. Benzyl alcohol, N.F. t.i. dms. frt.	1.20	2.60	
tanks, same basis	1.26 1.37	1.85 1.43	4
88b.	1.40	-	
tanks, same basis tech, grade, t.i., dms., same basis ib. tanks, same basis.	1.34 1.32	-	I
Benzyi Denzoate, cms	1.26 1.65	2.25	
Benzyl chioride, tech., non-ret, dme., o.l., t.l., irt. equald,	.59	·-	Os
tanks, f.o.b	.54 8.50	9.95	Ca
n-Benzyl-N,N-dimethylamine, t.l., dmst.o.b. works lb. Benzyl formate, dms ib.	2.30 10.50	- \	
6-tert-Butyl-m-cresol (see Mono-tert-buty Benzyl isoeugenol, dms	1-m-cresol) 15.50		
Benzyl propionate, dms ib. Benzyl salicylate	3.35 2.90	3,25	C
Berzylidine acetone, cre., bota ib. Bergemot oli, nat., italian, f.o.b kilo	2.96 40.00	3.26	G
Betanydroxynephtholo acid (see b-Oxyna Biotin, cryst500 gms, or more gm.	phthole so 5.50	id)	֓֞֟֓֓֓֓֟֓֓֓֟֓֓֓֓֓֟֓֓֓֟֓֓֓֟֓֓֓֓֓֟֓֓֓֓֟֓
Biphenyi (see Diphenyi). Bismuth nitrate, purif. cryst., 100-			l c
Bismuth oxychiorida 100-ib dms	10.00	-	
Bismuth subcarbonate, USP, medium	17.20	-	0
Plamuth subcallate out/ 100-lb	15.31	15,50	ļc
Blamuth subnitrate NF, powel, 200-lb.	10.50	-	ļ¢
Bismuth subsalicylate, purif, powd.	14.45	-	٦
Bismuth trioxide, reagent, nowel 100.	17.00	-	۱ c
Bisphenol-A, BDOXV grade, hopper	15.00	15.45	
polycarbonate grade, same hasis in	.67 .71	-	1
Blanc fixe, syn., Imp., bage ib. Bola de rose oli, Braz., dms ib. Peruvian, dms ib. BON tons (and 40)	.20 10.75	12.00	c
	10.75 7.25	e.05	c
	6.50	7.90	ļc
(red 62) dms., same basis			-
(red 62) dms., same basis, ib. Bonemeal, steamed, dom., bgs., c.l., f.o.b. Midwest plants ton imp., same basis. f.o.b. Philadel.	300.00	<b>-</b> .	1
(red 62) driss, same basis	No for	- fluorinated	١
(red 62) driss, same basis	No Pri e (see De	fluorineted	

	Borax, tech., gran., decahydrate.	237.00		Calcium carbide, atd., generator size, buik, c.l., f.o.b., works, ton	402.00	_	
	89%% bgs., c.l., works ton bulk, c.l., works ton tech., pentahydrate, gran. 89%%,	192.00	-	Calcium carbonate, pulvertzed, 325- mesh, bgs., bulk, 1.o.b.	702.00	_	A
	bas, a.i., works ton	220.00 265.00	-	workston slurries, 54% solids, same	34.50	-	
l	Borax, NF (See Scotum borate). Boric acid, tech., gran., 99.9%, bgs.,			basis	167.00 98.00	<u>-</u> .	
İ	bulk, c.L, works ton	614.00 569.00	-	quicklime, gran., ind., bulk, work-	67.00	-	<b>    •</b>
I	Boron trichloride, CP, 1.800-lb. cyls., works	3.80	-	Calcium carbonate, coated, bgs., c.l., works	.0742	.1350	
	Boron trifluoride, 60-lb. cyls., i.l., f.c.b. workslb. bulk, same basislb.	4.03	-	Calcium carbonate, precip., bgs., cl.,Liton	370.00	430.00	WEE
	Boron trifluoride, etherate, 500-ib. dms., t.i., i.o.b., worksb.	3.47 2.35	_	Calcium carbonate precip, medium, bgs., c.i., works ton	95.00	140.00	i
	phenolate, 500-lb. dms., t.i., same basis	1.65	_	precip. dense. bgs., c.i., surface treated, bgs., c.i., works ton	195.00	-	Carbon E
1	Bromine, dms., t.i., works ib. bulk, 45,000-lb. min., works ib.	.87 .33	- .3412	ultrafine, USP, bgs., c.l.,workston	160.00	170.00	baga, c
E	purif., t.i., divdlb. kromine divd., prices for dma. and bulk ship	.75	-	Calcium chloride, cono., reg. grade. 77- 80%, flake, bulk, c.i., workston	153,00	. i	bgs., -super
	1c per-lb. higher. Bulk t.t. prices higher for 30,000-lb. min. and	IC. to 21/2	Cper-10.	100-lb. bgs., c.l., same basiston	196.00	_ \	bgs.
E	higher for 15,000- lb. min. komochloromethane, dms., c.l., f.o.b.			anhyd., 94-97%, flake or pellet, bulk, c.l., same basiston	217.00	_	semi-r
Ę	Micland	1.12 .26	261/2	80-lb. bgs., c.l., same basis ton brining grade, 80-lb. bags ton	279.00 285.00	- '	bgs.   Carbon b
1	,4-Butanedioi, tanks, f.o.b., frt. equaldib. drns., same basisib.	.80 88.	-	Calcium chloride, liq., 100 percent ba- sis, t.c., t.t., barge ton	99.75	_	buk, c
	Butene-1, tanke, f.o.b. worksb. i-Butyl acetate, syn., tanks, frt. alkl. ib.	.26 .52Vz	.28	45% same basis	118.00	-	f.o.b.
ſ	-Butyl acrylate, tanks, frt. elid. E lb. -Butyl alcohol, syn., ferment, tanks,	.69	-	dms., t.l., frt. equeld lb. Calcium citrate, purif., 200-lb. dms.,	.90	-	Carbon
	frt. alld	.34 .365	-	10,000 lbs. or more, f.o.b. workslb.	3.82	-	tech.
1	ert-Butyl alcohol, syn., tanks, divd.	.70	_	Calcium cyanamide, indust., anhyd.	300.00	-	tani
	Butyl aldehyde (see Butyraldehyde) Butyl benzyl phthalate, tanks, frt.			Calcium gluconate, USP powd. t.llb. Calcium hydride, lump, dms., 25-	1.80	-	Carboxy Cardam
	alid	.53 .99	1.00	1,000-lb. lots. works lb. Calcium hypochlorite, 100-lb. dms.,	10.50	13.25	Cardem
	Butyl cyclohexyl phthalate, tanks, divdlb.	1.01	-	truckloads ship,t. E. of Rock- iss	92.40	-	Camine
	n-Butyl ether, dms., c.l., t.l., works lb. Butyl isodecyl phthalate, tanks,	1.85	-	500 idios or more kilo Calcium lodate, FCC dms., f.o.b.	13.75	14.50	Carnaul
	divdb. n-Butyl lactate, tanks, f.o.b. works . lb.	.35 1.58	Ξ	worksib. Calcium iodide, 50-kilo dms., f.o.b.	5.50	-	North
	n-Butyllithium, 15% soin., 1,000-ib. lots or more, cyls., 100% basis, divdib	15.45		workskilo Calcium lactate, NF, powd., pentahy-	23.65	26.65	Camaul
	tanks, 3,000-lb. min., 100% basis, divd	14.75	_	drate, dms., 24,000 lbs. or more, f.o.b. workslb.	2.00	_	North
	Butyl methacrylate, tanks, frt. equaldb.	.88	_	NF, gran., trihydrate, same besis. ib. special gran., dried grade, same ba-	2.10	-	Powde
	Butyl octyl phthalate, tanks, divd.	.45	.47	als	2.80	-	b-Carot
	Bulyl Oleate, dist., dms., c.l ib. tanks	.88 .83	-	f.o.b. plant, E. of Rockieslb. d-Calcium pantothenate, USP, 100-	.85	-	
	p-tert-Butylphenol, tanks works lb. Butyl phthalate (see Dibutyl phthalate). Butyl steerale comments does 77 does	.70	-	500-kilo lots kilo di-Calcium pantothenate, feed grade,	10.50	11.50	b-Car
	Bulyi stearale cosmetic, dms., 77 dms. or moreib. tanksib.	.91 .92	.97	f.c.b. frt. sild., 250 kilos or more kilo di-Carcium pantothenate, calcium chio-	8.00	8.50	b-Caro
1	Butyl stearate tech., t.l	.60	.62 .58	ride complex, feed grade, 160 grams per lb., f.o.b., frt. alid.,			d-Carvo
1	tanks	nine).		500 ibs or more ib. Calcium phosphate, dibasic, feed	2.75	-	Cascara Casein,
	worksfb. tanks, earne basisib.	1.31 1.17	-	grade, 181/2% P. bulk, c.l., t.l., f.o.b. New Wales, Fis., frt.			
	Butylated hydroxyanisole, food grade, dms., divdlb. Butylated hydroxyloluene, food, feed	8.80	8.85	f.o.b. Montpeller, lows, same ba-	254.00	-	A
١	grades cl., tl., bgs., dlvd. lb. lech . bgs., cl., tl., dlvd lb	1 24 1 24	1 30 1 30	sigton f.o b. Alden, lowe and Weeping	266.50	-	Cassella
	1,3-Bulylene glycol, tanks, dlvd ib. Bulyraldehyde, tanks, dlvd lb.	.72 .29%	.38	Water, Neb., same basis . ton. Calcium phosphate, dibasic, dihydrate,	266.50	-	Cassia.
	Butyric acid, tanks, frt. alid ib. Butyric ether (see Ethyl butyrate).	.4472	-	USP, bgs., c.l., t.l., works, frt. equald 100 lbs. anhyd., USP, same basis 100 lbs.	62.50 71.75	-	USPS
١	Butyrolectone, tanks, 1.0.b. plant lb. n-Butyronlirile, dms., c.l . dlvd lb.	1.20 .93	=	dentifice grade, same basis 60 lbs. Calcium phosphate, monobasic,	49.90	Ξ	refd. o blown dehyd
	tanka, divd	.54	_	monohydrate, food grade, bgs., c.l., t.l., works, frt.			dehyd
				equald	50.50	-	ricinol Castor
				sis	54.95	-	Caatore
	V			equato 100 lbs. Calcium propionate, dms., 2,000 lbs.	62.60	-	Catech
1	Dedmium chloride, purif. cryst., 100-		ليستنا	or more (.o.b. frt. slid lb. Calcium silicale, hydraled, bgs., o.l.,	.50	~	tech.
	ib. dms., t.l., worksib. Cadmium, CP, red, dark shade, bbls.,	3.73	-	works	,07 tonite).	-	Caustic Caustic Cedarles
	100-lb. lots, frt. alid., E. of Rockies	11.33	16.35	Calomel, NF, mild powd., 100-lb. dms., f.o.b. works	8.50 xaphene)	-	Cedarwi
	ight shade, bbis., same basis ib. medium shade, bbis., same basis.ib.	8.16 10.69	12.08 15.20	Camphor, monobromated, dma., kgs	3.63	3.70	Cedrol,
	medium-light shade, bbis., same ba- alaib.	10.28	14.50	Camphor, syn., tech., 165-kb. dma., 6.000 lbs. or more lb.	1.80		Celery a
	Cadmium, CP yellow, all shedes, bbis., 100-lb. lots, frt. slid., E. of	8 40	7.0-	USP, powd., 165-lb. dms., 5,000 fb. lots or more fb.	2.36	-	Cellulos
	Rocklesib. Cadmium fluoborate, liq. conc., dms., t.l. works, frt equaldib	6.10 2.27	7.07	syn., reid., 1-oz. tablets, ctns. 1,000- b, lots or more	3.50	-	Cellulos
	t.l., works, frt. equaldlb. medium-light shade, bbis., same ba- sislb.	2.27 3.22	-	Camphor oi, yellow, 25-lib. dms lb. white, dms lb. spec. grav., 1.070, dms lb.	2.50 1.50 2.00	-	38%
	Cadmium-mercury lithopone, mercon shade, bbis., frt. alid. E. of		-	Cananga oil, Indonesian, dris kito Candellia wax, crude, bgs ib.	2.00 17.00 1.90	2.25	65% t
	Rockies	4.60		reid, pure, bgs	2.10	- .65	J
	lote, ca., divid	1.20	1.50	i tankaib.	.80	85	std.,
	Caruniani-aeseride-ilmobone, otange,	2.10	-	Caprolactam monomer, flake, bgs., t.l.,	3.95	5.35	Certum o
	fight shade, bbis., 400-lb. lots. frt. slid. E. of Rockles lb.	3.97	4.00	f.o.b. shipping point ib. moiten, tanks, same basis ib.	.87 .85	· _ =	77%0
ı	deep shade, bbis., same basis ib. Cadmium-selenida lithopone, red, dark .	4.47 6.77	4.50 e.en	Capryl sicohol sec. 92-98% tanks, f.o.b. works	.35	-	Certum
	shade, bbis., same bests ib. light shade, bbis., same bests : ib. medium light shade, bbis., same ba-	5.27	6.80 5.30	Caprylio acid, comi. pure tanksib. Capalcum (see Pepper, red). Capalcum oil (see Capalcum oleorasin).	.731/2	•	Cetyl slo Chalk (s
	els	5.72 6.37	5.75 6.40	Capalcum oleoresin, NF, from dom.,	11.00	<u>_</u>	Chamon Roma Egypt
	marcon shade, boss., same basis. ib. Cadmium-selenide lithocone, validy, ali	7.47		NF, from Amoan pepper, cms.	9.00	_	Channon blue,
١	shades, bbis., same basis ib. Cadmium eulfate, 50-ib. dass., any	2.97	3.00	1,000,000 pungency b. Caraway oil, Poland, dms. ib. Caraway seed, Dutch, bgs. ib.	17.00 22.00	18.00 25.00	Chanop
	QUENTITY, 1.Q.D. STUP. PT NO.	4.05		Egypten.bos	.71 .58	-	Chilles (c
	Caffeine, dom., USP, syn. cryst. an- hyd., powd., 100-lb. dms., c.l., t.l., frt. alld	4.80		Carbon black, lumace, last extruding . (FEF), bulk, c.l., works	3178		Chloren
	Imp., cryst., anhyd., powd., dms., 10,000 bs. or moreb.	4.70	4.85	bgs, o.l. worksb.	.3378	11	Chlorine
	Calamine, USP, dma	1.60 28.80	1.70 35.00	Works	,3125 3325		509
	Calcitarol. (see Ergocalciterol). Calcium acetate, purif., powd., dms.:	. 97		high abrasion (HAF), high atrusture, bulk of works b bost of works b	.3300 .35		809 709
1	t.l., works.	. <b>97</b>	్ న్ని కైకము	June 9, 1986		HUNICA	L. N. A. DI
	The first section of the section of	1.42	All Same	<b>为是自然的体系是是 到多数的人的人的</b>	AUTO RES	A SHALL SHAL	Carlinda est 1

350	<b>PRICE3</b>		
10 10	WEEK ENDING JUNE 6,	1986	
.	Carbon Black, low structure, bulk, c.l. works	.3225 .3425	=
"	Intermediate-super-abrasion (ISAF)b. bgs., c.f. works,b, super-abrasion (SAF), bulk, c.f.,	.3450 .3850	:
1	works	.3850 .4050	:
	works	.3125 .3325	=
	C.I., works	.30 .32	.30½ .34½
	fineries	14.50 14.50 420.00	-
	Carbon tetrachloride, CP, consumers, dms., c.l., frt. altd	.36 .31	-
-	tank transport (min. 4,000 gals.) frt. alid	.24	
25	Cardamorn olf, NF, bots	75.00 4.25 6.25	100.00 9.76
•	Carmine, No. 40, NF, bulk, 100-lb, lore or more, divd	135.00	140,00
50	low, bgs., ton lotsb. Cears, No. 1, yellow, bgs., ton	1.95	2.05
- 85	North Country, No. 2, refined, bgs., ton lots.	1.75 1.55	1.90 1.65
	ton lots	1.10	_
-	ton lots	1.30	1.45
- -	mesh, 20c. per lb. higher b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A unita per gram., 33 ba. or more lb.		
.50	per gram. 33 lbs. or morelb. b-Carotene, liq. in vegetable oil. 600,000 A units per gram., 33	32.75	•
.50	bs. or moreb. b-Carotene, dry, beads, 10%, 167,000 A units per gram 50-lb. cns ib.	40.75 26.85	-
	d-Carvone, 25-lb. dms., syn lb.	48.00 7.00	7.26
•	Cascara sagrada bark, bulk, ib. Cascara, imp., acid-precip., grd., 30- mesh, Australian, edibie,	1.00	-
	Australian, indust., same basis.	1.45 1.365	-
•	Cassella ecid, 303 mol. wt., dms., frt. alid., 100% basis	3.70	_
•	Cassia, Korintji "A" bgs. b. "B" bgs. fb. Castor off, raw, No. 1, Braz. tanks b.	.78 .72	.92 .78
	USP 5-9 dmsb. reld. deod., 5-9 dmsb.	.31½ .74 .78	.33
•	blown, 5-9 dmsb. dehydrated, bodled, tanksb.	.75 .74	=
	dehydrated, unbodied, tankslb. Castor oil, acids dehydrated, dmslb. ricincieic acid	.85 1.10 .791⁄2	_ 
	Castor pomace, bgs., container load, f.o.b., Miami, Flaton	154.00	-
•	Catechol, CP, 45-kilo dma., 60-239	18.00 11.00	35.00
•	i tech., bgs., t.i., same basis kilo.	7.93 3.71	Ξ
	Caustic potash (see Potash, caustic). Caustic soda (see Soda, caustic). Cedarleaf oli, dmsb.	17.60	_
'	Cadarwood oli, Texas, dma., cnalb. Virginialb.	3.50 3.70	4.00 4.20
70	Cedrol, prime dms ib. Cedryl scetate, dist., dms ib. Celery seed, Indian, bgs ib.	5.25 4.25 .62	5.30 .54
•	Celery seed oil	<b>50.00</b>	83.00
•	Cellulose acetate bulyrate, powd., 17% butryl content, bgs., t.L.	1.30	-
-	divd. E	1.75 1.59	Ξ
25 -	60% butryl content, bgs., divd. E b. 65% butryl content, bgs., divd. E b. Cellulose gum, pure, high vis., bgs. 24,000-lb. lots or more works,	1.81 1.63	=
- 65 85		1.60	1,70
96 36	std., low or medium vis., bgs., c.l., t.l., f.o.b. Hopewell, vis ib. Gerium concentrate CeO., 80 lbs ib.	1.60 1.35	1.90
:	I CANTUM NACHOXANA WUSH CARS. MMG	5.40 4.20	1.60
	works. b. 77% CaO <sub>2</sub> , dries, works. b. Cartum oxide, optical grade, bgs., 50- lb. lots or more, divd. b. Catyl sloobol, NF, cras, o.l., t.l., divd. E. lb.	1.85 .88%	1,90
	Chamomie flowers, Hungarian, ca., ib.	4.25 4.94	4.60
	Roman, es	2.70 545.00	3,00
) 0	Chanopodum oil, NF, cns	370.90 16.00 13.50	=
_	blue, Hungarian. b. Chenopodam oil, NF, cns. b. Chicago acid, dry, bbls., fri. alid., b. Chiles (see Pepper, rad). Chicradne, tech., 100% basis dms., c.i., fri. alid. b. Chiorendie enhydride, tech., dms., t.I., works.		<b>-</b>
: •	c.t., frt. ald	3.60 1.30	_
<u>.</u>	Chlorinated paraffin, 40% chloring, bulk, dwd., Zone 1	4.15	4614
	50% chlorine, same basis in.	48	474

CH PR	EMICAL
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WEEK ENDINGSONE S		
Chlorinated paraliin, Zone 2 prices are	ic. per lb.	higher a
Zone 3 prices are 2c per lb. high	ner and t.l. (	drum pric
are 5c per lb. higher		
Chlorinated rubber, 5, 10, 20 cps., bgs,		
L.l., divd	1.56	_
40 cps, ogs., i.i., alvo	1.92	-
125 cps., bgs., t.l., divdlb.	2.80 2.75	-
300 cps., bgs., i.l., divdib. Chiorine, tanks single units works,	2.10	_
f.o.b., frt. equald ton	195.00	200.00
Chloroscetic acid, mono, high purity,		
flake, 99% bulk f.o.b.		
works	.56	-
2-Chloro-4-aminotoluene, tech., liq.,		
ams., c.i., t.i., 1.o.b. works . io.	1.88	-
o-Chioroanline, liquid, dma., c.l., f.o.b.	4.00	
Works	1.63	-
p-Chloroanline, sold, c.l., t.i., f.e.b. lb.	1.55 1.70	-
flake, dris., c.l., same basis ib.	2.00	_
o-Chlorobenzaldehyde, dms., t.l.,		
works	2.45	_
works		
ibs. of more, works	3.84	3.85
o-Chiorobenzoic acid, dins. Lt I. wks ib.	3.90	-
p-Chlorobenzolc acid, dms., 500-lb.	4.00	
lots or more, works	1.69	2.25
CROCOCOFR, MICH. 18765, ORSI. DIVID 10.	.341/2 .341/2	-
toch., consumers, tanks, dvdlb. NF tanks, min., consumer, 4,000	.0472	-
cala divid	.351/2	_
2-Chioro-4-nitroanline, paste, com-	.0072	
MODITY DARIS, GMS., T.I.,		
f.o.b. ib. powd., same basis. ib. 4-Citoro-2-nitroanine, paste, 172.8	3.08	-
powd., same basis ,	3.15	-
4-Chioro-2-nitroanine, paste, 172.5		
moi. Wt., Continionly gasts,	0.00	
dms., t.l., l.o.b.,	2.25 2.70	-
powd., same basisib. o-Chlorophenol, dms., c.l., frt.	2.10	-
equaldib.	2.00	2.40
p-Chlorophenol, dms., c.l., frt.		2.70
equald	1.25	1.70
equald		
rr. equac	39.	_
Chierosulfonic acid, tanks, (rt.		
p-Chiorotoluene, tech., tenks,	.181/2	-
p-Chiorotoluene, tech., tenks,		
works	1.00	-
ner oram kin inte	24.00	_
Choline bitarirate cryst 98% min. 50	24.00	-
idio dms., f.o.b. Springfield,		
Mo.,kilo.	6.90	_
Mo	•	
<b>BQUEOUS. 1.C., 1.1., d/vd. E. O</b> 1		
Rockies	.241/2	.28
ours ory supplement	.37	.39
Choline chloride, 60% dry supplement,	40	,,
bulk hopper cars lb.	.39 .48%	.48
bga., 50,000 lbs. min lb. Choline chloride, pharmaceutics, 50	.4011	-
klio, lots, f.o.b. Springfield,		
Mokho.	5.00	_
AL III - All III		

o lots gm. yat., 98% min., 50	24.00	-
.c.b. Springfield, kilo. Bed grade, 70%	6.90	-
c., t.t., dlvd. E of b. .ntb.	.24½ .37	.25
Kdry supplement, cars	.39 .48%	4
tarmaceuticsi, 50 .o.b. Springfield, .kilo. citrate, 98% min.	5.00	_
1.0.b. Springfield, klio. extra light, bos	6.00	-
rockieslb. lasialb. ne basislb.	1.68 1.70 1.72	-
ame basisib. , bgs., divd. E. of ib.	1.74 .83	•
bbis., divd. E. of b. %, flake dms., c.l.,	1.09	1.
ib. Boin., 71/2%, drns., Io. lots, works Ib.	1.18 1.25 .10	•
1de, dms., t.l., 1b. lms., t.l., f.o.b 3b.	.81 1,10	
s. same basis Ro. hydrated, 50-1b. 	.69 5.50	
	1.90 1.85 4.50 1.05	2 2 1
bots	88.00 2.80	95

	VIIEIII/	7		mediumvis., bgs., 24,000 bs., f.o.b. Hopewell, Va., 100% hask b. 1.25
	CHEMIC	<i>_</i>		detergent makers, f.o.b. manufac-
				CMC, purif., high vis., (see Cellulose gum). Coafter pitch, indust., ilq., works .ton. 225.00 275.00
,	PRICES		F	roofing, 140-165, Federal specifica- tion RP-381 Type 1, bulk
	LUINES			Cobalt acetate, dns., t.l., frt. ald lb. 3.61 4.25
	WEEK ENDING JUNE 6,	1988	[	Cobelt carbonate, powd., dms., frt. alkdb. 6.61 8.16 Cobelt chloride, dms., 5,000 lbs. or
			Librar and	more, ft. equetdRb. 4.15 Cobalt hydrate, dms., t.l., frt. alidlb. 8.20 10.65
(	Chlorinated paralfin, Zone 2 prices are Zone 3 prices are 2c per lb. high	ner and t.l.	drum prices	Cobalt metal, 99.5-99.9%, 250-kilo. dms., 1.o.b. NY, Chicago lb. 11.70 –
(	are 5c per lb. higher Chlorinated rubber, 5, 10, 20 cps., bgs, Ll., dlvdlb.	1.66	<u>.</u> 1	Gobalt nephthenate, liq., 6% Co., dms., dlvd
	40 cps, bgs., i.i., dlvd lb. 125 cps., bgs., i.i., dlvd lb.	1.92 2.80	Ξ.	Cobalt nitrate, dms., t.l., frt. ald fb. 2.74 3.45 Cobalt oxide, imp., black, 72-73% Co 9.51
(	300 cps., bgs., t.l., divdb. Milorine, tanks single units works,	2.75	- '	Co
(	f.c.b., frt. equaldton Thioroscetic acid, mono, high purity.	195.00	200.00	dms, dwdb. 1.36 Cobalt resinate fused, 3% Co.,
	flake, 99% bulk f.c.b. works	.56	-	Cohelt sulfate, cryst., bos., 10,000 lbs.
	:-Chioro-4-aminotoluene, tech., ilq., dms., c.i., t.i., f.o.b. works . ib. -Chiorosniine, liquid, dms., c.i., f.o.b.	1.88	-	ormore, int. slid. E lb. 2.81 3.54 monohydrate, dms., int. slid lb. 4.56 8.02
	workslo.	1.63 1.55	-	Cobalt tafate, 6% Co., dms., dvd lb. 2-16 -   Cocitana bark, bis
	o-Chloroaniline, solid, c.l., t.l., f.o.b. lb. flake, dms., c.l., same basis lb.	1.70 2.00	Ξ	Coconut oil (See Oils, Fata & Waxes market report.). Coconut oil solds, distilled, t.o.,
	- Chlorobenzaldehyde, dms., t.l., works	2.45	-	f.c.b
•	-Chiorobenzaldehyde, dms., 2,000 lbs. or more, workslb. -Chiorobenzoloadd, dms. Li I. wks ib.	3.84 3.90	3.85	Cod of, f.o.b., Gloucester, Mass., bulkgel. 6.50 -
	-Chlorobenzoic scid., dms., 500-lb. lots or more, workslb.	1.69	2.25	Codeine alkaloid, NF, 25-kilo lote, ikilo. 900.00 – Codeine phosphate, USP, cns., 25-kilo lote. kilo 640.00 –
(	Chloroform, tech. tenks, dietr. divd lb. toch., consumers, tenke, divd lb.	.341/2 .341/2	-	fots
	NF tanks, min., consumer, 4,000 gals. divd	.35%	-	Codiiver oil, NF, dme, gal. 6.50 7.25 Coosibe belsam, dme,
2	-Chioro-4-nitroanline, paste, com- modity basis, dms., t.l.,	3.00		Copelba oil, cne., dms
4	powd , same basis	3.08 3.15	-	tech., dms., t.l., works lb
7	mol. wt., commodity basis, dms., tl., l.o.b	2.25	_	100,000-lbsper-year con- tracts, workslb. 1.34 – Copper carbonate, 55% Cu, dark,
۰	powd., same basisib. -Chiorophanoi, dma., c.i., frt.	2.70	-	dense, 50-lb. bgs., c.l., t.l., works 100 lbs. 108.30 —
ρ	equaldhb. -Chlorophenol, dms., c.l., frt.	2.00	2.40	ēght, flufty, 50 lb. baga, c.l., t.l., works 100 lbs. 109.30 -
C	equald	1.25 .98	1.70	Copper chloride (cuprio), anhyd., c.l., works
C	fri. equaidib. Thiorosulfonic acid, tanks, fri. equaid	.181/2	_	Copper cyanide, tech. dms., 24,000- ib. lots or more b. 2.30 2.62
	-Chiorotoluene, tech., tenks, works,ib.	1.00	_	Copper fluoborate, (cupric), liq. cono., dms., t.l., works, frt. equaldb. 1.05½ –
	holecalciferol, dry, 40,000,000 units per gram, kilo lots gm.	24.00	_	Copper gluconate, FCC grade, 25-lb, dm., frt. equaldlb. 6.50
C	holine bitarirate, cryst., 98% min., 50 Idio dms., f.o.b. Springfield,	400		Copper metal electrolytic wire bars, divd., dornestic, basisib661/2
C	Mo.,	6.90	-	Copper naphthenate, Ilq., 8% Cu., drs., frt. alld
	Rockies	.24½ .37	.28 .39	Copper nitrate (cupric), puril., flake, dms., t.l., works
C	holine chloride, 60% dry supplement, bulk hopper cars ib.	.39	.48	works frield
c	bgs., 50,000 bs. minb. hotine chloride, pharmaceuticel, 50	.481⁄2	-	80,000-lb. lots, workslb. 1.21 red (cuproue), dms., 97%, USN Type
,	klio, iota, f.o.b. Springfield, Moklio. Holine dinydrogan dtrata, 98% min.,	5.00	-	1, (AA), 80,000-lb. lots, workslb. 1.19 1.20 red, 90%, Type 2, same basislb. 1.15 –
Ì	50 kilo lats, f.o.b. Springfield, Mokilo.	6.00	_	red, W7%, Type 2, seme basis b. 1.15 – Copper-8-quinolinolate, 10%, liq. emutaton, t.l., divd b. 2.52 –
(	Zwome green, CP extra light, bgs., divd. E. of Rocklesib.	1.68	-	Copper sulfate, cryst., pentehydrate, 99% bgs., c.i., f.o.b. works
	light, bgs., same basis ib. medium, bgs., same basis ib. axira deep, CP., same basis ib.	1.70 1.72	Ξ	CP, pentahydrate, cryst., dms., j.c.l.,
(	hrome orange, CP, bgs., divd. E. of Rockles	1.74	- .89	Works
	Antome yellow CP bbls., divd. E. of Rockies.	1.09	1.18	basio, bgs., c.l., works 100 lbs. 88.30 Corlander oil, USP, dms
(	Shromic acid, 99%%, flake dms., c.l., frt. equeld	1.18	_	Corlander seed Moroccanlb26 .27 Rumanian
(	grd., same basis	1.25	-	Com oil (See Oils, Fats & Waxes market report). Com oil, crude, foots (scapstock), 95%
(	500-2,000-lb, lots, works lb. Chromium fluoride, dms., t.l., works	.10	-	acid; New York lb 13½ 14 Com oil acid, dms
	Chromium nitrate, dms., t.l., f.o.bib. soin., 500-lb. dms. same basis lb.	.81 1.10 .69	-	Corn syrup 43 Be., tanks, f.o.b.
	Chromium oxide, hydrated, 50-1b. bgs.,c.i	5.50	_	Of more acoustics, Cost, Cities, D. Kilos
	pure, bgs., c.lb. Cinnamic aldehyde, cns., dmsb. Cinnamic alcohol, 25-lb. cnsb.	1.90 1.85	2.00 2.45	Cottonseed meal (See Oils, Fats & Waxes market report.) Cottonseed oil (See Oils, Fats & Waxes market report.) Cottonseed oil, soldulated (soap
	Cinnamon, H2	4.50 1.05 88.00	1.10 95.00	Block), Bcid, 95%, tanks,
	Cinnamon lear oil, dms	2.80 5.50	6.65	tanks
	syn., 55-gal. dms	3.75	4.75	1013
	Carac Boog, USP, annyo., Orbit. 250-15.		-	Cream of tariar (see Potassium bitarirale). Creosote, coaltar, grade 1, tanks, f.o.b. works
	dms., t.l., dei	-86 2.12	2.24	D-Cresidina fused does works in 4.34 1.17
	Java, oms kilo China, dms kilo	4.50	Z.24 	1171 – 1804 88-9070, dMS., t.l., 1.0.b  b.   1.71 – 1804 88.
	Citronellal, 25-lb cans	3.85	7.40	m.p-Cresol, 99%, 0ms., t.l., f.o.b lb
	Citronelyl formate, 25.4b, one th	· 5.50	8.50	0-Cresol, 9% pure, orns., t.l., f.o.b. lb
	Civet, artif., bota	500.00		p-Cresol, 98%, dma., Ll., (p.b., B. 192
	dom., crushed, majsture-rapel	1 49.00 -	-	Cresylio acid, coaltar, dom., metapara
	lent, bulk, c.t., Tenn tor Clay China (see Kacilo)	24.00	-	content above 25%, restri and triuresyl phosphate grades.
	Cloaners, naphtha, 140° flash lanks.	•		25% or less terks (a) all a
	Clove leaf oil indonesian, reg. dms. kik Madagascer, reg.	1.40 2.85	3.00	Crotonic acid, 200-lb. dina., t.l., f.o.b.
À.	Cloves Brazi	25.00		Cube root, powd., 5% roterone heats
	Zanziber	7.55	)	Cumene, bulk, contract, f.o.b
,	34 CHEMICAL			Cumin seed, Indian, bgs
1.1				June V. 1986

CMC, technical, 96% minimum, low or medium vis., bgs., 24,000 ibs., f.o.b, Hopewell, Vs., 100% basis

	Cyanuric acid, dms., c.l., t.l. frt.	1.16	1.37	Diathyl
ı	equaldib. Cyclamen aldehyde, 50% min. aldehyde content, dmsib.	4.85		Diathyl o
I	96.6%, dms	7.35 7.85	9.20	tanks. d Digithyl d Digithyl
	Cyclohexane, bulk, barages, worksgal. Cyclohexanol tech., tanks, f.o.bb. Cyclohexanone tech., tanks, f.o.b.	1.01375 . <b>52</b>	1,03375 .66 <i>V</i> 2	Diethyi pi odorle
	worksb. tanks, divd	.55½ .565	.58½ -	Diethyl su
	Cyclohexylamine, tech., tanks, worksib.	.85	1.05	Diethyl Di-2-othy
	R			Diathyl to
			i	N,N-Diel
				ta Diethylan tenks.
ſ	2,4-D ecid, tech., 50-lb, bgs., c.l., t.l., works, frt. equald lb. 2,4-D butyl ester, tech., 55-gal. dma.,	1,10	1.25	N,N-Dioti
	c.i., t.i., works, frt. equald ib. tanks, same basisib.	1.30 1.25	-	Diethylbo Di-2-ethy
	2,4-D dimethylamine sait, t.c., t.t. works, frt. alidgel. Decyl alcohol, mixed isomers, tanks,	8.05	-	Di-2-ethy Diethyler Diethylo
I	clivdlb.	.32 .75	-	tanks,
	Defluorinated phosphate (tricalclum), feed grade, 18% P, 50-lb. bgs., c.l., f.o.b. New Wales,			Diethyle tenks,
	Fis., frt. equaldton t.l., same basiston bulk, f.o.b. White Springs, Fis.,	233.00 212.00	-	Diethyler
	same basis ton divd. bulk, Calif., Nev., Utah, Ariz-	214.25	-	tanks, Diethyler
	divd. bulk, Wash., Ore., ida., Mont. ton	264.33 385.02	-	tanks, Diethyle
	Mont	1.87	_ 	tanks, Diethyld
	NOTE: Tankcar sales require written au and Tobacco Tax Division. Denatured alcohol, ethyl,	rthorization	Dy Alconol	Diethyle
	SD2B, tanks, divd. E gal. SD3A, tanks, divd. E gal.	1.81 1.76½	Ξ	
	8023A, tanks, divd. Egal. SD23H, tanks, divd. Egal. SD29, tanks, divd. Egal.	1.86 1.89 1.83	-	Digitoxir Digiycol
	SD30, tanks, divd. Egal, SD35A, tanks, divd. Egal.	1.721/2	Ξ	Diglycol Dihydra:
	Denatured etcohol, ethyl, brucine formuta SD40, tanke, dvd. E gal.	1.83	-	Dihydro: Dihydro
	ethyl, optional formula, SD40, tanks, divd, Egal. For anhyd, alcohol on abova formulas,	1.821/2		DHsobu DHsobu
	nigher. West Coast divd. prices are the san	ne as East	em prices.	Di-Isobi
	except in Idaho, Oregon and W differential on lankcars is maint	'ashington v alned.	vhere a 5c.	Di-Isode Di-Isono Di-Iso-o
	Desoxyephedrine hydrochloride (See I drochloride) Detergent alkylate, straight chain do-	Methamphe	tamine hy-	Di-Iso-or Di-Isopr
	decytbenzene, tanks, barges, f.o.b.	.45	_	tanks
	Dextrin, corn, canary dark, paper bgs., c.l., works 100 lbs.	28.04	-	Di-Isopri
	white, paper bgs., c.l., works	27.43	-	Dilauryi:
	Dextrose, anhyd., comi., bgs., c.i., dvd. New York 100 lbs, USP special, 100-lb. bgs., c.i., dlvd. New York 100 lbs.	41.10	-	Dimethy Dimethy
	Dextrose, hydrated comi, bgs., c.l., dwd. New York 100 lbs	46.50 24.25	-	Dimethy
	Western zone 100 bs. Diacetone alcohol, acetone free, tanks, divd b.	25.60 .52	-	Dimelin
	Diammonium phosphate, fert. grade.	9.25	16.00	Dimethy
	min, 18% N, 46% P. bulk, c.i., f.o.b. Fla. works ton Diammonium phosphate, feed grade,	145.00	150.00	Dimothy
	18%N, 20%P, bulk, c.1., 1.o.b. Fig. workston	240.00	_	Dimeth
	Dianumonium phosphate, tech., bgs.,	250.00	-	Dimethy
	equald	52.50	-	tanks Dimethy
	2,4-Di-tert-amylphanol, min. 96.6%,	57.75 1.04	-	Dimeth
	tanka, works	.97	-	Dimeth 40%
	frt. alid	6.20 4.25	-	enhy N,N-Dir
	2,0-DHert-Butyl-p-Cresor (see Butylate	d hydroxyl		t,i. dr N,N-Dir
	works	.70 .61 .68	.75 -	tenks
	Dibutylamine, dms., c.i., divd., 25,	1.86 1.12	1.85	2,4-Din Dinitros
l	tanks, same basisib. Dicapryi phthalate tanks, frt. alid. E. ib. 2-6-Dichloroaniline, ffake, dms.,	1.08 .35	.37	2,4-Din
ļ	works. B. fused dras, works B. 3.4-Dichloroanline, tech. 88%, solid,	2.00 1.80	=	2,4-Din
	o-Dichlorobenzene, tech. 88%, solid, dms., c.l., t.l., t.o.b. works . ib. o-Dichlorobenzene, tech., 80%, dms.,	1,46	1.57	Dinktrat
	tanka, sama basisb.	.62	=	2,4-Di
	tanks, same basis	.64 .47	=	Dioctyl Dioctyl
	dms., t.l., f.o.b., frt. equald. b.	.51	.52 .47	Dioctyl Dioctyl Dioctyl
	10,000 lbs. or more, works.b. Dichlorophenoxyspetic sold (see 2.4.D	3,30	-	1,4-Dk
	(o.b	1 45	_	U., a Dipenta
	/ IBINKA SAMO L.	1.25	-	Dipent
	O'cyclohexyl phthalate, bgs., c.i., t.i.,			
	Dicyclopentadiene, high-purity, 97- 98%, tanks, works	1.25	- : -	Sulfa Dip oil ( Diohan
)	Dicyclopentadiene, high-purity, 97- 98%, tanka, works. b. Olethanolemine, tanke, frt. alid. b. Dicthanolemine, laund suffere tanks.	1.25 .95 .44	.47	Dip oil ( Dipheri
) j·	Dicyclopentadiene, high-purity, 97- 98%, tanks, works. by Oteltranolamine, tanks, int. akri	1.25 .95 .44	.47	Dip of (

			•	
7	Digithyl carbonato, tankwagons, f.o.b.works	1.40		i
:0	divd	1.18 1.10		
3375	Diethyl ethanolativne tech , 0c per lb low Diethyl exalate, dms , cl. fob, works ib	er. 1.80		:
i61/2 i81/2	Diethyl phthalate, tanks, t o b ib. odorless cosmotic grades, t.l.	.62	.65	
1072	works ib Diethyl sulfate, tenks , fit alld E. ib. Diethyl thiouses, dras. cl , t.i.	.971 <u>/2</u> .59	:	
)5	works Ib Di-2-othy/noxyl adipate (see Dincity) adipate	2.48 }.	-	
}	Diethyl toluamide 95-97% min meta Isomer dms II. I.o.b. works ib. N.N-Diethyl-m-toluidine, toch , liq.,	2.75		
	H.N-Diethyl-m-totatione, tech , liq., dr., dr., c., dr., b	3.18 3.10	. /	
_	Diethylamino, dms , c l., dlvd , lb. tanks, same basis lb.	1.15 1.02		
25	N.N.Diothylaniline, dms., c l., l.l., f.o b worksib. tanks same basisib	1.83 1.75	:	
	Diethylbenzone, tanks, f o b. works lb. Dk-2-ethylhexyl azelate (see Dioctyl azelate Dk-2-ethylhexyl phthelate (see Dioctyl phth	.98 8).	-	
	Diethylene glycol, tanks, divd. E ib. Diethylene glycol monobulyl ether,	.2915	.ain	
	dms.,c.i., frt. alid E lb. tanks, frt. alid E lb. Diethylene glycol monoethyl ether,	.65 .57	:	
	dma., cl., frt. alld E lb. tanka, frt. alld. E	.64 .56	:	
•	Diethylene glycol monomethyl other, dms., c.l., frt. alid lb. tanka, frt. alid lb.	.62 .64	:	
	Diethylene glycol monobutyl ether ac- etate, dms., c.l., divd. E Ib. tanks, divd. E	.80 .72	:	
.	Diethylene glycol monoethyl ether ac- etate, dms., c.l., (rl. ald. E. ib.	.80		
cohol	tanks, frt. alid	.72 1.60	1.61	
	Diethylenetriamine pentascetic acid, pontascotum salt solution,	0		
	tank- cars/tanktrucks, Irt- oqualizedib Digitoxin, USP, imp., botsgram	.45 2 60	3.00	
	Diglycol laurate, dma., ton lots lb Diglycol stearate, dma., t.l lb.	.3212 .62	- .73 1.25	
•	Dihydrazine sulfate, dms., works tb. Dihydrostreptomycin sulfate, bulk kilo Dihydroxyacatone, 50-kilo lota,	1.10 48 00	-	
-	workskilo DHsobutyl ketone, tanks, divdib. DHsobutyl phthalate tanks, divd. E. ib.	40 00 .60 .55	- .67	
er gal. xices,	Di-Isobulyiene, tenks, f.o.b. Hous- tonb.	.37	•	
9 A 5c. 18 hy-	Di-isodecyi phthalato, tanks, divd ib. Di-isononyi phthalato, tanks, divd ib. Di-iso-octyl azelato, tanks, divd. E ib.	.39½ .41 .90	:	
.u 11y-	Di-iso-octyl phthalate, tanks, divd ib. Di-isopropanolamine, dms., c i , fri. aild ib	.41 .66%	-	
-	tanks, same basis	.5812 1.17	:	
-	tanks, same basis	1.07	•	
-	Dili oil, USP, dms b. Dimethyl enthranilato, dms	7.00 15.80	8.26	
-	Dimothyl benzyl carbinyl scotato, 25- ib. dms	6.95	-	
_	works	.90 3.50	:	
.00	Dimethyl othenolamino, arrhyd., dms., c.l., dvd. E	1.15	1.18 1.10	
.00	tanks, divd. E	1.07 .38	•	
_	Dimethyl phthalate, tanks, f.o.b works	.85	•	
-	works	2.26	2.58	
-	tanks, ib. Dimethyl sulfide, tanks, works ib.	.67 .46 1.09	129	
- -	Dimethyl sufoxide, tanks, works ib. Dimethylacetamide, bulk f.o.b ib. Dimethylamine, 25% soin., tanks, irt.	.78 .87%	. : .	
-	equald., 100% basisib. 40% soln., tanks, frt. equald., 100%	.631/		
- -	basisib. anhyd., lanks, frt. oqualdib. N,N-Dimothylanline, i.i., (,o.bib.	.6377 .5472 1.03		
e) .76	t.l. dms	1.11 .67		: · !
-  .85	tanks, same basisib. 2,4-Dinitroeniline, tons-tots, f.o.b ib.	49 1.22		v dibi.
_ .37	Dinitroanline, orange toner, CP, bgs., divd. E. of Rockies lb. 2,4-Dinitrochlorobenzene, crystalizing	6.20	artini ji da Karata	
_	at 47°, t.l., f.o.b. Charlotte, N.C	.96		
- 1.57	Charlotte, N.C	1.95		
-	works	,30 1,25		Ì,
=	Dioctyl adipate, tanks, frt, alid. E ib.	20 .67 .90		
.52 .47	Dioctyl azelate, tanke, divd. E lb. Dioctyl phthelate, tanke, divd lb. Dioctyl sebacate, 99%, tanke, f.o.b.	. 45	101	
-	1,4-Dioxane, tanke, frt. aiid. E ib. t.l., same basis	,13 ,21		
-	Dipentaerythritol, bga., c.l., t.i., divd. E	1.42	10 P	ŀ
<u>.</u>	Dipentane steam-dist., tanks, f.o.b.: Fis. works	.28 .25		
.47	Dip oil (see Yar acid oil). Diphenhydramine hydrochloride. USP: dom., 1,000-killo lots, dms.,	37 - 11 - 3 1 - 1 - 1 - 3	0 M	
1, ,	Diphenyi, 99.9%, bgs., o.l., t.l.,	74 5		
	tanka, works	.66	1	Í
				Ü

Dinhardovida task anda taska da						_
Diphenyl oxide, tech. grade, tanks . fb. Diphenylamine, reld., flake, bgs., t.l., works, frt. equald lb.	1.11	1.20	Epinephrine base, syn., USP, bots., 100-gram lotsgram Epoxy resin, liquid, bulk tanks,	.60		
octviated, flake, box, 11, 10 b	1.00	Ξ,	divid	1.31 1.281 <u>4</u>	1,41 1,33%	1
works Diphenylguanidine, bgs., t.l., frt. ald	7.68	-	Epsom sak (see Magnesium sunate). Erythorbio scid, powd., gran., 100 ib. dms., t.l. or mixed t.l. f.o.b.			I
Dipnerylhydantoin-sodium USP, dms	2.52 5.00	5.60	worksib. Ester gum, gum-rosin type, dine., c.l., divd., ill., Md., Ky., E. States,	4.10	4.25	l
Diphanylmethane 4,4,-di-laccyanate, polymeric, bulk, c.i., min, frt		<b>5.</b>	divid., II., Md., Ky., E. States, Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. lib.	.75	_	ŀ
alidb. Dipropylene glycol, tanks, frt. alid ib. Dipropylene glycol monomethyl ether,	.91 ,45	=	Ester gum, wood-rosin type, dms., c.i., same basis ib.	.43	.46	ŀ
tariks, same basis ib.	.54 .46	Ξ	Ethyl acetate, syn., 85-88%, tanks, clvd	.41 .41%	.41½ .42½	F
Di-o-tolyiquankline, powd., dms., t.l., frt. alidib. Di-o-tolyithioures, tech., solid, dms.,	2.92	-	Ethyl acetoscetate dms., c.l., dvdib. tanks, dvd	1.13 1.05	-	
LL, frt. aldb. Ditridecyl phthalate, tanks, divdib.	3.11 .60	.63	Ethyl acrylate, tanks, frt ald lb. Ethyl alcohol, syn., 190 pf., USP tex free, tanks, divd. E gal.	.66 1.55	-	2 F
Diundecyi phthalate, tanks, civo ib. Divinyibenzene, 100% basis, tanks works	.58 2.75	2.60	Ethyl alcohol, absolute, 200 pf., tax free than 190 pf., tax free.	prices 12	c. higher	ا
dms, 100% basis lb. I-Dodecanol, syn., tanka, f.c.b lb.	3.00 .76½	2.70	Ethyl alcohol, fermentation, tanks, f.o.b. works	1.06 ax Incentiv	1.26 83.	ľ
Dodecenyl succinic anhydride, dms., c.l., t.l., divd	.88	-	Ethyl alcohol, denat. (see Denatured alcoho Ethyl p-amhobenzoate, NF (see Benzocaln Ethyl penzoate, dmg	e)	1 EA	
Dodecylphenol, tanks, min. frt. alld. Eb.	.48	.53	Ethyl bromide, tech., 98%, dms., c.l., frt. slid. E	1.35 .76	1.50	١,
Dyes, coeltar, certified colors for food, drugs and cosmetics, 100 lb. and over, frt. prepaid or alld.			Ethyl butyrate, dms	1.35	1.60	
Blue, FD&C. No. 1	21.20 29.15	22.60 29.22	bgs., t.l., frt. equald. Elb. standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. Elb.	4.55 4.17	4.22	
Green, FD&C, No. 3	49.50 24.00 7.45	65.00 24.50 7.85	medium via., 50, 70, 100 cps., t.l., frt. equald. E	4.25	-	
No. 6	6.45	6.75	USP vis., 7 cps bgs., t.l., frt. equald. USP 10,20,45,100 bgs., t.l., frt. equald. E	4.88	-	١
and cosmetics, 100-lb. lots divd.	20 50		equald. E	4.59 4.51	4.69	l
Green, D&C, No. 5	38.50 42.80 18.85	=	Ethyl chloride. tech., cyls., frt. alid lb. tanks, frt. alid lb.	.26 .24	.281/2 .261/2	l
No. 17	38.90 38.25	Ξ	Ethyl cinnamate, dms klio Ethyl ethanolamines, mked. dms., t.l., dwd. E	41.00 1.23	-	l
No. 22	12,45 59.95 48,95	=	tanks, dlvd. E	1.15 .46	-	١
Yellow, D&C. No. 7	21.00 20.55	-	Ethyl hexanoate, dms	4.25 .63	4.75	١
No. 10	48.80 35.25	48.85 -	tanks divd. E	.57	Ξ	۱
and paper dyeing (by Color in- dex Name). f.o.b. works			mixed, tanks, frt, alid. E ib. 2-Ethylhexyl alcohol, tanks, divd ib. Ethyl fodide, cbys., works ib.	.79.5 .35 6.25	=	l
A Bik 1 Bitue black ex. conclo. Dyes, A Bi 9 Blue 2Glb. A Bi 45 Alizarine Biu SAP 150% .lb.	5.75 5.46 19.85	-	Ethyl linalool, syn. 55-gal. dms lb. Ethyl linalyl acetate, syn., 55-gal.	10.60	Ξ	١
A BI 90 Alizarine Br. Cy G lb. A BI 113 Navy 5R lb.	14.13 6.55	Ξ	Ethyl methacrylate, tanks, frt.	10.65 1.06	-	l
A Gr 16 Gast 2G 333% b. A Or 7 11	22.12 3.72	Ξ	equaldfb. n-Ethyl morpholine, dms., t.l., frt. alid	2.00-	-	l
A Or 8 RO Ex. Conc lb. A Or 10 Wool Or G lb. A Or 74 Metallized Or GNA lb.	4.00 4.30 6.15	-	tenks, same basis ib. n-Ethyl-a-naphthylamine, dms., works ib.	1.92	-	l
A R 2G	5.13 8.85	=	Ethyl oxalate (see Diethyl oxalate).		•	1
A R 18 Scarlet 4R Conc lb. A R 88 Fast Red A. Conc lb. A R 151 Silk Red 3B Conc lb.	5.45 6.85 4.60	Ξ	Ethyl silicate dist. (see Tetrasthyl orthosilo Ethyl silicate, 40% available SiO <sub>2</sub> . dms., t.l., f o.b. workslb.	1 45	1.45	
A V 17 5BNS Conc	9.75 12.22	-	tanks, f.o.b. works lb. N-Ethyl-m-taluidine, tech., liq., dms.,	1.39	-	١
A Y 17 Fast Light Yell 2G lb. A Y 23 Tertrazine Ex Conc lb. B BI 9 Zinc Free lb.	5.69 6.18 16.40	-	c.l., f.o.b	3.18 3.10 2.65	_ 2.90	l
B Br 4 Bismark Brown R Ex. Conc. lb. B G 1 Jace Crystals lb. B Gr 4 Malachite Green Crystal lb.	4.42 9.55	-	Ethyl vaniin 100 lb. dms., 500 lbs. or more	13.50	_	l
B Gr 4 Malachite Green Crystal ib. B V 1 Methyl Violet Crystale ib. B V 10 Rhodamine B Ex ib.	6.90 6.60 10.95	-	100 lb. dms., less than 500 lbs lb. Ethylamine (see Mono-Di- and Tri-)	13.75 14.00	14.50	l
B Y 2 Bond Yell SFA 150% lb. D Bl 1 Sky Blue 69 Conc lb.	10.10 4.62	-	N-Ethylaniline, dms., c.l., t.l., f.c.b. worksib.	1.68	-	Į
Ex. Conc. 300%	9.25 9.45 2.85	Ξ	tanks, same basis	1.58 .22	- .23	۱
Fast Black GR 150% b. D Br 230 Resin Fast Brown BRNB	4.28	-	Ethylene, contract, divd	18 18.00	.181/2 18.25	1
200%	7.23 9.15 7.98	Ξ	works,	1.30 7.55	1.305 9.25	l
DR 31 Brilliant-Red 128 Conctb. DR 80 Fast Red 8BLNb.	6.16 6.15	=	Ethylenediamine tefraacetic acid, te- trasodium salt, soln., t.c., t. t., frt. equald	.36₩	_	l
OR 81 Paper Red 88LP	6.65 6.25 2.47	-	equaldb.	.38	.45	١
W8. Conc. 150%b. D Y 4 Brilliant Paper Yell 3GX	11.25	-	tanks, fri. equald	.32 .17	.42 .17%	١
125%lb. Britiant Paper Yell 3GX Liqlb. D Y 11 Stillbene Yellow GA. Ex.	4.69 1.75	=	Ethylene glycol, indust., tanks, frt.	.31	-	١
O Y 41 Fast Yellow RGL Cong.	3.03	-	Ethylene glycol, monobutyl ether, tanks, dvd. E ib. Ethylene glycol monoethyl ether,	.411/2	-	١
200%	9.75 14.40 4.26	=	tanks, divd. E	.51	-	1
Dis R 91 Pink REL 200% b. Dis Y 3 Yellow G b.	21.00 3.65	-	tanks, divd. Eib. Ethylene giycol monobutyl ether ac- etale, tanks, frt. alid. Eib.	.34 .841⁄2	_	
Dis Y 54 Yellow 30	6.84 4.91 3.77	Ξ.	Ethylene glycol monoethyl ether ac- etate, tanks, ft. ald., E lb. Ethylene glycol monomethyl ether ac-	.551/2	-	٠
Dis V 1 4RN Paste b. Dis V 26 Bordesux RV 200% b	7.85 17.25	=	etate, tanks, frt. alid. E ib. Ethylene oxide, tanks t.o.b ib.	.43 .35	.45	
Dis B1 27 Blue GGLF	10.05 22.80	-	Ethylane trichloride (see Trichlorosthylan Eucalyptol, NF, dms. Portuguese .klio.			I
V G 1 Jade Green Double Paste . 1b. V Bik 25 Olive TA Paste	4.10 5.50 6.85	=	Eucalyptus oil, Portuguese NF, reati- fied, 70-75%, dms kilo NF, rectified, 80-85%, dms kilo	5.50 8.25	=	
		-	Eugenol, USP, dms kdo	7.55	<u> </u>	
					. '	
Endrin, tech., 95-99%, dms., t.l lb.	7.00		.   -			1
iots. armyd., USP, 80-oz.	1.25		Fennel oil, sweet, USP; cns idio Fennel seed, Egypt ib.	9,00 .33	-	
less than 1 000 kg	. bane	40.25	Ferric chloride annyd., tach., 350-lb. dma, c.l., works 100 lbs.	.57 36.00	<b></b>	
Ephedrine suifate, USP, cryst., cms., less than 1,000 kilos kilo Epichlorohydrin, tanka, divd lb.	43.00 .86		Ferric chicride, 42 Be, photo grade drie, c.l., works 100 be.	9,10	i Alasahi ya	
			A Committee of the Colorelle		n 2014 (2014)	ġ,

1,41	works	176.00 .64	255.00	
1,3312	Ferrio coralete, tech., gran., 50-lb. dn.,	1.65		300
	f.o.b. worksb. Ferric oxides (see Iron Oxides).	1,00	_	▎ <b>▞</b> ▔▞▔▞
4.25	Ferric phosphate, FCCg insoluble pov- der, dme, 10,000 lbslb.	1.10	1.15	PRICE.
	Ferric pyrophosphate, soluble, puril.,			
	pearls, 50-lb. dmlb. Ferrio resinate, precip., 6.76% Fe.	1.11	_	
	dms., ton lots frt. alki ib. Femic sultate, partly hydrated, 100-ib.	.45	- [	WEEK ENDING JUNE
.46	bgs., c.l., works ton	141.00	-	WEEK ENDING CORE
.411/2 .421/2	bulk, workston Ferric ammonium clirte, NF, brown,	117.00	-	Glue, bone, extracted, green, jes
-	green gran. 100 lb. dms., 2,000 lb. min., f.o.b. shipping		8	grams, bgs., c.l., f.o.b 85 jelygrams, bgs., c.l., f.o.b
-	pt	2.00	2.95	115 jefygrams, bgs., c.l., f.o.b   135 jefygrams, bgs., c.l., f.o.b
- 1	20. per pound aurcharge for shipments W Ferric-ammonium oxalate, fine gran.,	, of Denver		164 jellygrams, bgs., c.i., f.o.b I
higher	250-ib, dms., i.i., f.o.b, works. E	.42	_ 1	192 etygrams, bgs., c.i., f.o.b 1 220 jetygrams, bgs. c.i. f.o.b
	Ferric hydroxyethylene diaminetri-	-1-		Glue, hide,
1.26 3.	acetic ecid, industrial grade, sodium sait, soin., 4.5% Fe,			108 jellygrams, bgs., t.l., f.o.b
	t.c., t. t., f.o.b. works \b. agricultural grade, sodium salt solu-	.55	- ]	164 jellygrams, bgs., t.l., f.o.b 192 jellygrams, bgs., t.l., f.o.b
1.50	tion, 5% Fs, t.c., t. t., f.o.b. worksb.	.64	_	222 eliygrams, bgs., t.l., f.o.b
-	Ferrous fluoborate Iq. conc., dms., tl.,			251 jellygrama, bgs., t.l., f.o.b
1.60	works, frt. equald lb. Farrous gluconate. NF, t.l., works E.lb.	.82½ 2.25	_	315 jellygrams, bgs., t.l., f.o.b 347 jellygrams, bgs., t.l., f.o.b
-	Ferrous naphthenate, Ilq., 6%, Fe. dms., dlvd	1.17	_	379 jellygrams, bgs., t.l., f.o.b
4.22	Ferrous sulfate, moist, bulk, t.l. f.o.b.			411  ellygrams, bgs., t.l., f.o.b 444  ellygrams, bgs., t.l., f.o.b
-	workston heptahydrate, gran., bulk, t.l., f.o.b.	30.00	-	477 jelygrams, bgs., t.L., f.o.b., . Glutamic scid, 99½% dms., 100
_	workston monohydrate, gran., bulk., i.i., f.o.b.	145.00	150.00	lots, frt. alld
4.69	workston USP, powd., 400-lb. dmsb.	170.00 .49	180.00	Giycerine, nat., reid., USP, CP 99' tanke, divd
_	cryst., 250-lb. dms	.61	=	USP, CP, nat. 96%, tanks, divd. Syn. 96%, tanks divd.
.281/2	Fir oil, Canada dresb. Siberia, dresb.	10.20 8.75	.75	Syn. 99.5%, tanka divd
.261/2	Fish oil, reid., alkali, tanks, c.iib. kettle-bodied, tanksib.	.29 .32	.36	Glycine (see Aminoacetic ecid). Glyceryl gualacolate. 100-lb. fib. d
_	light, cold-pressed, dms., c.ib.	.34	-	f.o.b
-	tanks	.26	-	Giyoxai 40% soln., bulk, tar
4.75	protein grd., bulk, f.o.b. At- lantic port ton	295.00	_	divd
_	f.o.b. Gulf portton		-	Calif., dms
-	imp., Chilean, 65% protein min., bulk, c.i., t.i., ex whse., f.o.b.			Israeli
-	Atlantic and Gulf ports ton. Fluoboric acid, dms., t.l., works, fri.	285.00	-	ex whse
Ξ	equaldlb.	.91	-	ex whee
-	Fluorocarbon, No. 11 bulk, tanks, delvdb.		.64	Graphite, cryst., 90-92%, powd., dms., ex whee
-	No. 12, bulk, same basis lb. No. 22, bulk, same basis lb.		.74 1.14	95-96% powd., bgs., dms. whse
-	No. 113, bulk, same basis ib.	.89 1.02	.9372 1.08	Graphite, amorph, cryst., 97% an
	No. 114 bulk, same basis ib. Fluosificio acid (see Hydrofluosilicio acid	i).	1.00	powd., bgs., dms., whee
-	Ferugreek seed, Indian, bgs ib. Formaldehyde, 37% methanol free (un-	.32	-	Graphite, flake, No. 1, 90-95%, I
-	hthibited)divd., gulf(b. 44-45% (1% methanol) tanks,	.088	.0905	No. 2, 90-95%, bgs., dms. whse
	divdb. 37% (inhibited 7% methano),	.1015	.1085	Grease (See Oils, Fats & Waxes m Grease oil (See Lard oil).
1.45	divd. 1b. 37% (inhibited 11-15% methanol)	.0945	.1025	Guelacol, tech., 500-lb dms., 24,00
-	tanks, divo lb.	.1055	.1060	rffin., f.o.b. Wallingfo
-	Formamide, tanks, f.o.b	.39 .44	_	NOTE: Purified grades are 10c.hi Gualacwood oil, dms
2.90	Formic acid 90% tenks, f.o.b. works	.36Vz	_	duer gum, edible, bgs., c.l., l.
_	95% dms., c.l., works lb. Fructose, cryst., 18,000 kilos or more,	.511/2	-	ship't.pt
14.50	dmsb.	.90	1.03	same basis
	Furnaric acid, food grade, bgs. t.l., int. equald. Eb.	.751/2	.77V2	
-	tech. grade, bgs., t.l., f.o.b. frt. equaldb.		.621/2	
	Furfural, tanks, f.o.b. Cedar Rapids, lows, and Belts Glade, Fla. ib.	.75	_	
.23 .1812	Furturyl alcohol, tanks, f.o.b. Memphis,			
18.25	Tenn. and Omaha, Neb , . ib.	.72	-	Notice and the second
1,308 9.25				Heriotropin, dms
	152			Henbana leayas, bis
-				100% basis
.45				Heptane, Indust., tanks, f.o.b. Be mont, Tex
.42	G salt, dma., frt. ølid. 100% basis lb.	2.30	_	95%, tanks, f.o.b. Houst Tex.
.17%	Gallic acid, 400-kilo lotekilo	23.05	105.00	Heptanoic acid, syn., tanks, t.o.b
-	Geric oil, drns., Egyptisn			i-Hexadecanol, syn., tanks, f.o.b. Hexahydrophthalic anhydride, t
-	1.t.i., divolb. 125 AOAC test, dms., l.t.lb.		1.75 1.85	dms., i.t.i., f.o.b. works Hexamethylenetstramine, gran. i
_	150 AOAC test, dms., i.t.l ib. 175 AOAC test, dms., i.t.l ib.	1.85	1.95 2.05	c.f., t.l., works
_	200 AOAC test, dms., i.t.i ib	. 2.06	2.15	gran. dms., c.i., t.i., works pdr. bgs., c.i., t.i., works
	225 AOAC test, dms., i.t.ilb. 250 AOAC test, dms., i.t.i, ib.	. 2.20	2.25 2.35	powd. drns, c.l., t.l., works Haxans, indust., tanks, works
_	275 AOAC test, dms., l.t.l lb. 300 AOAC test, dms., l.t.l lb.		2.45 2.65	95%, tanks, f.o.b. House
-	Gentian violet (see Methyl rosseniins o Geraniol, syn., 90-92%, dms ib.	hioride).		-Hexanol, syn., tanks, f.o.b.
.45	nat., 90-92%, dms	: 3.50	-	Hexyl alcohol, mixed isome
. =	syn. 98-96%, dims	24,00	27.50	p-Hexyl methacrylate, dms., works
_	Bourbonb.	33.00	88.00 85.00	Hexylene glycol, tanks, divd
=	Egypt		•	Hexylresorcinol, USP, dma., 25-b. or more, frt. slid
	Geranyl acetate, dms b.	5.44	6.00	Homatropine hydrobromide, USP, 100-oz. lots, bots.
· · · · ·	Geranyi formate, syn., dms , ib.	6.60	: <u>-</u>	Homatropine methylbromide, USP
	nat.,dmab. Gilsonite, g.p., bulk, c.i., f.o.b. Bo-	16.95	<del></del>	250 oz. lota, bota
. '	nanza, Utah ton	· 180.00	· <u>.</u> :	Hydrazina hydrate, 85%, 1.t.,
	selects, same basis ton Ginger, Cochin, bgs	.65		00-981, 0mg., t.i., irt, eag
استنهد	Chinese silced	75.00	_	Hydriodio acid, purit., 47%-579 cbys., f.o.b. works.
40	indian	70.00	85.00	Hydroabietyl alcohol, tech., s
.60	Glauber's self (see Sodium Hulleton).		N below	tanks, f.o.b. zone 1
-	Gluconic acid fach. 50% time., c.l., t.l., f.o.b, works	BD	er i e gi	1.0.b
<u></u>	tenico, serrie ipesis	44		Hydrochicaio acid, grithyd, (ees Hy
	・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	A SECULAR TO A SECULAR	26 T 137 B AT 177 A	NAMED OF TAXABLE PARTY OF TAXABLE PARTY.

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WEEK ENDING JUNE 6	, 1986	
Glue, bone, extracted, green, jelly-		
grams, bgs., o.lb.	_	-
85 jellygrams, bgs., c.i., f.o.b ib.	.86	-
115 jellygrams, bgs., c.i., f.o.b lb.	.78	-
135 jelygrams, bgs., c.l., f.o.b jb.	.77	-
164 jelygrams, bgs., c.i., f.o.b lb.	.79	-
192   etygrams, bgs., c.l., f.o.b lb.	-87	_
220 jellygrams, bgs. c.l. f.o.b lb.	.93	-
Glue, hide,	.80	
108 jellygrams, bgs., t.l., f.o.b ib. 135 jellygrams, bgs., t.l., f.o.b ib.	.85	_
	.90	-
164 jellygrams, bgs., t.l., f.o.bib. 192 jellygrams, bgs., t.l., f.o.bib.	.95	
222 jellygrams, bgs., t.l., f.o.bb.	1.00	_
251 jellygrama, bgs., t.l., f.o.b lb.	1.05	_
283 jellygrams, bgs., t.l., f.o.b b.		_
315 jellygrams, bgs., t.l., f.o.b lb.	1.15	_
347 jeliygrams, bgs., t.l., f.o.b , ib	1.20	_
379 jellygrams, bgs., t.l., f.o.b ib		-
411 ellygrama, bgs., t.l., f.o.b1b		_
444 ellygrams, bgs., t.l., f.o.b lb		
i 477 letvorems, bos., t.L. f.o.b., Ib	. 1.40	-
Glutamic scid, 991/2% dms., 100-lb		
lots, frt. alld kik	6.65	-
lots, frt. alld	•	
tanke, divd	891/1	-
USP, CP, nat. 96%, lanks, divd lb	8744	-
Syn. 96%, tanks dvd	89%	-
Syn. 99.5%, tanka divdib	191	-
Glycine (see Aminoscetic ecid).		
Glyceryl gualacolate. 100-lb. fib. oma		
]	74.60	_
Glycofic acid (see Hydroxyacetic ecid)		
Giyoxai 40% soln., bulk, tanka		
divd	441/2	
Coff deep h	). 1.25 ). 3.45	1.40
Calif., dmsit		2.00
Israell		2.00
		.40
ex whse		
Ax whee	80	.80
Graphite, cryst., 90-92%, powd., bgs	<del></del>	
dms., ex whee	b40	.75
95-96% powd., bgs., dms., e	)X	
whse	b60	.90
whse	D.	
powd., bgs., dms., e	X	
whse	b. <b>.8</b> 0	1.20
Whse	١.,	
dins., ex whse	o65	.75
No. 2, 90-95%, bgs., dms., e	X	
whse	)65	.75
	et report)	
Grease oil (See Lard oil).		
Gustacol, tech., 500-lb dms., 24,000tt	<b>)</b> .	
rfiin., f.o.b. Wallingford		
NOTE: Dudfind and do on 100 blate	). <b>2.7</b> 0	-
NOTE: Purified grades are 10c. highe	W 0 60	
Guaiacwood oli, dms it Guar gum, edible, bgs., c.l., l.o.t		-
. Calmi illuli. Milliam, lain., Cl. (A)	)	76
apply by all and any 1000	. 50	
ship't.ot	) <b>5</b> 0	.75
ship't.pt	••	.75 .85

	Heliotropin, dmsb.	8.00	8.25
	Hemiock oil (see Spruce oil).	0.00	020
	Henbana leavas, bis	.56	_
1	Heptachior dms., c.i., t.i., frt. aid.,		
	100% basisib.	4.56	_
	Heptane, Indust., Imrke, f.o.b. Beau-		
	mont, Tex, gal.	1.07	-
	95%,_tanks, f.o.b. Houston,		
	Texgal.	1.18	-
	Heptanoic acid, syn., tanks, f.o.b	.65	-
	i-Hexadecanol, syn., tanks, f.o.b lb.	.431/2	-
	Hexahydrophthalic anhydride, tech.		
	dris., I.L., I.o.b. works ib.	1.42	-
	Hexamethylenetetramine, gran. bgs.,	.55	
	c.l., t.l., works	.69	-
	gran. dms., c.l., t.l., works lb. pdr. bgs., c.l., t.l., works lb.	.60	• =
	powd.dms, c.l., t.l., worksb.	.63	Ē.
	Hexane, indust., tanks, works, gal.		1.15
	95%, tanks, f.o.b. Houston,	1.0	11.70
٠:	Taxgel.	1.12	
	I-Hexanol, syn., tanks, f.o.b fo.	.50	_
	Hexyl alcohol, mixed laomers,		
•	tankalb.	.32	
	p-Hexyl methacrylate, dms., c.l.,	**	1.
·	workslb.	.76%	
	Hexylene glycol, tanks, divd	.50	_
	Hexyresorcinol, USP, drns., 25-lb. lots		
	or more, frit. sild	30.00	, <b>-</b>
•	Homatropine hydrobromide, USP, 10-		
	100-oz. lota, bota oz.	10.25	11.30
'-	Homatropine methylbromide, USP, 10-	9.70	40 70
	250 oz. lois, bots oz.		10.70
	Horehound herb, blsb. Hydrazina hydrate, 85%, i.t., frt.	<b>.2</b> 5 ,	.28
. '	ald, , , , , , , , , , , , , , , , , , ,	1.54	
	55-gai, dma., i.l., frt. alid fb.		<u> </u>
	Hydriodia ecid, puril., 47%-57%, 2-	. 1,01	. : -
	cbys., f.o.b. works ib.	7.60	
	Hydrosbjetyl sicohol, tech., solid.		
. •	dine., e.l., f.o.b. zone 1, ib.	85	
	tanka, f.o.b. zone i		an y
	Hydrobromic acid, 48% dma., c.i. t.i.,		
7/-	1.0.b	1.2 38W	1. in 3. 3
3	1.o.b. ib. Hydrochiczio sciol, srihyd (see Hydroga	Tohiopidal.	
<u> </u>	<u> </u>	تأكينت بد	

June 9 1986 CHUMICAL MARKWYING REPORTER

		_				
			fron, purif., powd., palis, 10-100-lb.	100	Lake C, red toner. (red 53) bbls., frt.	5.70
CHEMIC			Iron code, black, syn., bgs., c.i., frt. squaid	1.00 – .38¼ .44	Lanolin, snhyd., cosmetic. 400-lb. dms., works	1.00 1
UNEMI	<u> </u>		iron oxide, brown, syn., bgs., a.i., frt.	.3814 .44	pharmaceutical, 400-lb. dms.	1.05 1
	7-		Iron oxide, metalic brown, i.e.i., bgs., frt. equald.	.13 .15	tech., (under 2% f.f.a.), 400-lb. dms., worksb.	.94 1
DDICES			kron oxide, nat., red., dom., pure, bgs., c.i., worksb.	435 -	Lard (See Ofe, Fals & Waxes market re Lard oil, No. 1, dms., c.i., f.o.b lb.	.34
PRICES			iron oxide, yellow,	.18 - .4276 -	tanks, same basisib. Lard oil, extra, winter-strained, dms.,	.28
WEEK ENDING JUNE 6.		<u>}</u>	tron oxide, buff, nat., dom, bgs., c.l., t.l., works, light ib.	.065 -	tanks, same basisb.	.41 .33
	1000		dark	.044 -	prime, burning, dms., c.i., same ba- els, Chicago ib.	.43
Hydrochtoria acid, 20° Be, tanks, works, East ton Midwest ton	55.00 80.00	65.00 70.00	lestoic aninydride, bgs., f.o.b. works ib. Isoamyl alcohol, 95% tanks, frt. alid.	.34½ .36½ 1.40 -	frime, burning, tanks, same basisb. NOTE: 300 Mi. red. 1 Vac. higher, exce	.35 nt Tayas 20 <b>60</b>
Gulf Coast ton Wast Coast ton	57.00 90.00	105.00	Eib.	.80 - 7.25 -	Coast, Sc. higher.	,60
22" acid, same basia, East ton Midwest ton	68.00 68.00	78.00 70.00	Isobornyl acetate, dmefb. Isobutyl acetate, solvent grade, tanks.	.80 1.15	Laurent's acid, drums, f.o.b b. Lauric acid, comi., pure bgs., c.i ib.	3.85 .65
Guil Coastton West Coastton	63.50 100.00	115.00	int. 686	.45 .48 .71 -	Laurio sidehyde (aldehyde C-12). dmsb.	7.75
NOTE: Prices vary and are either freight ized depending on producer and	liccation.		Isobutylacohol, tanks, divd	.29 -	n-Lauryi methacrylate, dms., c.i., t.i., worksb.	1.72
ateel-makers, grade, 20°, dvd ton Hydrocortisone acetate, micronized,	38.00	42.00	works	.32 -	Lavandin off, Abrialia, 30-32%, dms. lb. Lavander flowers, ord	4.00 .65
oms., 25 kilos or more , gram. Hydrocortisons, alcohol, micronized, cims., 25 kilos or more , gram.	.76 .70	-	works	.42½ - .87 -	medium, bie	.BD 1.10
Hydrofluoric acid, enhyd. (see Hydrogen Hydrofluoric acid, agusous. 70%		_	isobutyl salicytate, drns	3.10 3.50 3.45 -	Lavender flower oil, NF, French, b.	
tanks., 1.o.b. frt. equald100/bs.	43.00	_	tanks, divd	.43 - .35 -	spike, Spanish, dms kilo Lead acetate, purif., flake. 400-lb. dms., works	15,00 27 .46
Hydroflucellicio acid, 15-gal. dms., t.i., works, 30% basis ton	151.00	<b>-</b> .	i sobutync scki, oms., c.i., t.i., divd. ib.	No Prices	tech., fiske, t.l., 400lb. dms.,	
tanks, 100% basis, works ton Hydrogen bromide, anhyd. cyls., extra,	100.00	140.00	Isobutyronitrie, dms., c.i., f.o.b, works frt. collect	.84 -	Lead blue, basic, sulfate, bbis., c.l., ship,t.pt., f.o.b	
30,000-bs., f.c.b. works ib. Hydrogen chloride, anhyd., 50-ib. cyls.,	7.00	-	tanks, same basis	.75 - 5.20 5.60	Lead carbonate. (see Lead white basic Lead chicride, 400-lb. dms., works. lb.	carbonate).
c.i., worksib. 600-lb. cyls., c.i., same basisib.	.65 .62	-	Isoniazid, powd kilo Isonicotinic acid, hydrazine (see Isoniazid		Lead dioxide, tech., powd., 200-lb. dms., t.l., works b.	
Hydrogen chioride, anhyd., tube trallers, seller's traller, min. 100,000 bs. a year b.	97		isonorryi sicohol, dins., t. i jb. iso-octyl sicohol, tanks, divid jb. isonorom tanks, divid jb.	.48 - .44 -	Lead fluoborate, Ikq. conc., dms., t.l., works, frt. equald Ib.	.84
tube trailers, buyer's trailer fo. Hydrogen chloride anhyd., tanks,	.37 .27	-	isophorone, tanks divd	.81 -	Lead metal, divdib. Lead monosificate, milled, bgs., c.l.,	i
works	270.00	-	isophthalonitrile, bgs., t.i., worksib. isopropylacetate, tanks, divdib.	.46 - 2.65 -	f.o.b. works	571/2
Hydrogen cyanide, Iq., 99.6%, tanks, worksib. Hydrogen fluoride, anhyd., tank cars	.50	-	i isopropyi alcohol, annyd., 99%, tanks, divd	.47 – 1.38 –	Lead naphthenate ilq., 24% Pb. dms., frt. slid.,	93
c.l., f.o.b., irt. equaldib. Hydrogen peroxide, 35% tech., tanks,	.687.5	-	refd., 95%, tanks, dlyd gal.	1.31 - 1.25 -	t.l., works	.321/2
works, ft. equaldlb. 50% lankcars, frt. equaldlb.	.2325 .3225	-	raopropyi einer, tanka, divd  b.	.44 - .37 -	Lead red, 95% Pb <sub>3</sub> O <sub>4</sub> , or less, bgs. c.l. works	37
70%, tankcars frt. equald lb. Hydrogen sufilde, iq., 99.25% min.	.45	-	isopropylamine. (see Mono-, Di- or Tri-). isopropyl myristate, drns., t.i., E ib.	1.19 1,50	Lead red, 97% Pb <sub>2</sub> O <sub>4</sub> , bgs. c.l.	9714
seller's tanks, works	.11 1.75	-	Itaconic acid, ratd. bgs t.l ib.	1.45 1.48	Lead, red, 98% Pb <sub>2</sub> O <sub>4</sub> , bgs., c.l., same basisib	37\ <del>2</del>
era. c.l., t.l., dwd lb. tech., dma. c.l., dwd lb.	2.54 1.95	-			Lead silicothromate, bga., c.i.	
Hydroxyscello scid, tech., 70%, tanks, Balle, W. Va.	.491/2	_			worksib Lead suifate (see Lead, blue, basic s basic suifate)	
rydroxylammonkm suitate, dms., t.l., f.o.b.	.83	_	V		Lead, white, basic carbonate, bgs., c.i.	. 62
p-Hydroxybenzene sulfonic acid (see p-P Hydroxybutyt methylcellulose (visc.	henolauifo	nic ackt).	J acid, paste, dms., works, 100% ba-		Lead, white, basic, silicate, bgs., c.i.	
12,000 cps.)50 lb. bags, tl., cl. 30,000 lb. mln., divd., zone	0.40		Jacan wax. ca	4.75 <u> </u>	Lead, white, basic suifate, bgs., c.i.	85
Hydroxycitronellal dimethyl acetal, dmsb.	2.10 16.55	-	producing point	56.00 60.00	Lectinin, edible, tech., bleached, non ret. dms., i.o.i., works, , ib	36
p-Hydroxydiphenylamine, dms., t.i., f.o.b. works	4.10	-	Juniper berry oil, Italian	47.00 -	unbleached non-ret, dma., l.c.i., same basis	34
natural, drna	9.40	_	l <b>v</b>		edible, tech, bleached, non-ret, dms., t.l., works	)28
pure, cms	13.60 14.80	-			same basis	. ,28
by draw draw by Hydroxyethyl cefulose, t.l., clvd	9.50 2.07	2.12			Brezil	o. 8.50 o. 9.00
5,000 through 46,000 cps.) 50 Ro. bags, t.l., s.l., 30,000 Ro.			Kaolin, water washed, fully calcined,		Italian	0 11.25
min., divd., zone 1ib. Hydroxypropyi methylcetulose, pre-	2.73	-	bags c.l., f.o.b. Georgia ton NF pwd., colioidal, bacteria con-	255.00 -	Gustemalen, dms	0 60.00 9
mium, U.S.P. (yisg. 4,000 through 16,000 50 b. bacs.			trolled, 50 lb. bage., 5,000 lb. lb. lb. Kaolin, uncalcined. No. 1 coating, bulk,	.24 ~	Licorice root, whole, bis	) <b>7</b> 0
t.i., c.i., 30,000 fb. min., divd., zone 1	2.87 <sup>-</sup>	_	c.l., f.o.b., Georgia ton No. 2 coating ton	94.00 -	Lignosulionate (see under Ammonia fonate).	m or Sodium i
(visc. 60 through 100 cps) 50			No. 4 coating ton	75.00 - 73.00 -	Ume, chemical, pebble (quicklime bulk, 50,000 lbs., works, f.o.)	Ď.
Ib. bags, t.i., c.i., 30,000 ib. min., dvd., zone 1 ib. Hydroxypropyl methylcelulose (visc.	2.99	-	sis purpose, same ba-	70.00 - 58.00 -	Lime, chemical, hydrated, bulk, sam	n 39.00 /
4,000 through 15,000 cos) 50 to bags, i.i., c.i., 30,000 ib. in.,			cined paint grade 1 micron	-	bgs., same basis	n 46.00 (
Hydroxypropyl methylcelulose (visc.	2.17	-	avg., same basis ton dry-grd. sirfloated soft, same ba-	182.00 -	Lime, NF, purif., 100-lb, dms	b. 6.00
50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min.			sis. Ion Karaya gurn, No. 1, powd., bbls. Ib. No. 2, powd., bbls. Ib.	60.00 ~ 2.25 ~	Heitlen, diet., dme	b. 17.60
8-Hydroxyquinoline (see Oxyguinoline)	2.64	-	Kola nuts, bgsib.	1.95 - .491 <sub>2</sub> .51	I d-Limonene, drys	lo .70 b. 6.35
Hypophosphorous add, purit., 50% dmac.i., works	8.16			عند يوسا	syn., 96-100% dms., works	b. 2.90 b. 7.75
					92%, drss.	U- h 1800
					syn. 98-100%, dms., works. Linelyl benzoste, syn., 55-gal. dms. I	b. 800
					Linalyi cinnemate, syn., 55-ga dms Linalyi (omete, syn., 55-gal. dma., . l	h RORK
ichthammol, NF, 200-kilo dms ib.	4.5-		Lacquer diluent petroleum, 140F 200F. b.r., t.c., New Jersey		dma	M. Ib 850
ininodiacetic acid, 96% min., dms., c.l., t.l., works	4.25 3.00	4.50	Houston Texas	1.25 - 1.29 -	tors, dma., frt, alid	ሁ ት 960
Inositol, 50-kilo das., 1000 kilos or	25.50	-	240F. b.r., tackeers, Many	1.29 _	N.Y., 250-lb, dma., t.l.	18, 10. 9.00
more, 1.0.b. works kilo	17.50 13.50	22.00 18.00	Housing, Tex	1.20 1.2 1.12 -	i Linalyi propionata, svn., 55-ai	al. In 700
ledochlerhydroxyaun, USP, XVI FIL.	14.21	14.59	Works	1,08	Linseed meet/see Oils Fate & Wave	lb90
kilo dins., 100-499 kilos, frt. pild kilo. lodoform, NF, dins., 300-lbs., f.o.b.	35.00	48.00	Lactose, edible, reg. hos. o.l.	1.08 ~	Linsed oil fatty acid, dist., dine.	Market report)
a-locone, dos.	24.00 18.20	-	Lactosa, ferment grade, hos. o.l.	.22 .2	Litharge, com.l., powd., bas., o	fb. ,53
b-tonone, ans	13.10 25.00	=	Lactose, USP, ren. dme. nl (b.	No Prices	Lithium bromide, anhyd, done, i	lb361/2 On
whole whole	.55	- .60	USP. reg. drist., 10,000-lb. to (.).	.65 .6	39 soin same heele	D 6.27
ioniots dv P	2.70	-	Lactose, USP, sprsy dried, bgs., t.l., frt. equald		Lithium carbonate, powd., bgs., c t.l., divd. Lithium chloride, anhyd., o.l., t	
iron blue, reg., bgs., I.c.I., ton lots, same basis b.	2.00	. 2.15	bgs., 10,000-lb. to t.l. lols, frl. equald			
36 CHENICAL	MARK	eting i	ETA TOMBO	No Prices 9, 1986	soin, dins., c.l., t.l., divd, Lithium fluoride, dins., c.l., t.l., divd,	ib. 4.90
			3 to 100	· 4, 1200		

						_
١	Lake C, red toner. (red 53) bbls., frt.	5.70	-	Lithlum hydride, c I , t I., divd. 10,000 or more	23.50	-
	Lanolin, anhyd., cosmetic. 400-lb. dms., works lb.	1.00	1.08	Lithium hydroxide, monohydrate, dms., c l., t l., divd	1.93	-
]	pharmaceutical, 400-lb. dms. worksb.	1.05	1.08	Lithlum hypochlarite, c.i., t.i., works to Lithlum metal, 1,000-lb. lots or more, divd	1.07 22.70	~
	tech., (under 2% f.f.a.), 400-lb. dms., workslb. Lard (See Oils, Fals & Waxes market repo	.94 nrt.)	1.04	Lithkum nitrate, tech., dms., 100-lb.	3.25	-
1	Lard oil, No. 1, dms., c.l., f.o.b lb. tanks, same basis lb.	.34 .28		Lithium stearate; bgs., c i., fri. alid ib. Lithium sulfate, anhydrous, t i. divd ib. Lithol red toner, barium, dms., fri.	1.01 3.09	-
ļ	Lard oil, extra, winter-strained, dms.,	.41	-	gåd	3.27 3.50	•
	tanks, same basis ib. prime, burning, dms., c.i., same ba-	.33	_	Lithot rubine toner (red 57), resinated, dms., frt. alid	5.60	-
	els, Chicago lb. prime, burning, tanks, same ba- sis	.43 .35	-	Locust bean gum, powd., bgslb. 2,4-Lutidine, dma., t.l., frt. equald. kilo Lycopodium, 50-lb. dmslb.	6.00 5.75 8.00	<b>6.75</b> .
	NOTE: 300 Ml. rad. 1 V.c. higher, except Coast, 30. higher.	Texas, 2c.	and West	1-Lysine monohydrochlorido, feed grade, 10,000 lbs. divdlb.	1 35	10.00 1.40
١	Laurel leaves, Turkish	.60 3.85	.68 -			
l	Laurio add. comi., pure bgs., c.iib. Laurio aldehyde (aldehyde C-12). dmsib.	.65 7.75	.71			
	n-Lauryi methacrylate, dms., c.i., t.i., works	1.72	_	W		
	Lavandin off, Abrialia, 30-32%, dms. lb. Lavander flowers, ord lb.	4.00 .65	- .75	Mana Cast Indian village	4.00	
1	medium, bis	.BD 1.10	.90 1.19	Mace, East Indian, sittings, ib. Slauw #2 ib. Magnesia, tech., light, nooprena-	4.60 4.60	=
	40-42%, ester, cns lb. spike, Spanish, dms kilo	9.25 15,00	13.50 22.00	grade, bgs., c.l., t.l., works lb. Magnesia, syn., tech., chemical-	.75	.81
ŀ	Lead acstate, purif., flake. 400-lb.	.48	•	grade, bulk, cl., tl. workslon	330.00 365.00	-
ļ	tech., flake, t.l., 400lb. dms., works.	.37	-	bags, c.l., t.l., same basis ton deadburned, bulk, same ba- siston	392.00	-
Ì	Lead blue, basic, sulfate, bbls., c.l., ship,t. pt., f.o.bbb. Lead carbonate. (see Lead white basic or	.87 arbonate).	-	bgs., same basis	409.00	-
	Lead chorde, 400-b. dms., works, ib. Lead dloxids, tech., powd., 200-ib.	3.25	-	mesh, bulk, c.l., t.l., f.o.b. Nevton 90%, 325 mesh, same basiston	232.00 265.00	-
	dms., t.l., works lb. Lead fluoborate, liq. conc., dms., t.l.,	.66	.70	Magnesium bromide, 80-85. dms., hex- ahydrate	2.50	• _
ļ	works, frt. equald ib. Lead metal, divd ib. Lead monosilicate, milled, bgs., c.l.,	.84 .18	.87 .18¥2	Magnesium carbonate, light, tech., bgs., c.l., t.l., works, irt		7.
١	f.o.b. worksib. coarse, bgs., c.l., same basisib.	.58½ .57½	-	USP, lite bgs., c.l., same basis ib. USP, heavy, bgs., c.l., same basis ib.	.73 .74 .83	.78 .80 
١	Lead naphthenate liq., 24% Pb. dms., frt. alid	.93	-	Magnesium chloride, anhyd., 92%, flake or pebble dms., c.l.,		
١	Lead nitrate tech., cryst., 400-lb. dms., t.l., works	.321/2	-	works	.12%	.15
	Lead red, 95% Pb <sub>3</sub> O <sub>4</sub> , or less, bgs. c.l., works	.37	_	Magnesium gluconate, 100-lb. dms. f.o.b. works, E lb.	.141/2	-
1	Lead red, 97% Pb <sub>2</sub> O <sub>4</sub> , bgs. c.l., works	.3712	-	Magnesium hydroxide, NF, powd., dms., c.i., t.i., works frt.		
•	Lead, red, 98% Pb <sub>2</sub> O <sub>4</sub> , bgs., c.i., same basis	.37Vz	.401/2	equaldib. Magnesium lauryl suifate, tanks, f.o.b. works	.78 .22	- .264
	Lead silicoohromata, bga., c.l., worksb.	.35	<b>.</b>	Magnesium metal, 99.8%, ingots, 10,000-b, lots or more 1.o.b.		
	Lead suifate (see Lead, blue, basic sui basic suifate) Lead, white, basic carbonate, bgs., c.i.,	Hate and L	ead, white,	Freeport, Tex	1.53 1.29	1.33
	rt. alidb. Lead. white, basic, silicate, bos., c.l.,	.62	-	Magnesium nifrate, tech., flake. 250- lb. dms., t.l., works lb. Magnesium oxide, USP, light, bgs., c.l.,	.32	-
•	Lead, white, basic sulfate, bgs., c.i.,	.87	-	works, frt. equald, ib. heavy, dms., c.l., same basis, ib.	1.65 1.54	Ξ.
	same basis	.85 .36	-	Magnesium oxide, tech. (see Magnesia) Magnesium phosphate, tribesic, tech.		_
_	unblesched non-ret. dms., i.o.i., same basis	.34	-	60-lb. bgs., f.o.b lb. Magnesium eficate (see Taic) Magnesium eficoliuorido, bgs., c.i., t.i.	1.00	<u>-</u>
•	dms., t.l., works	.28	-	Worksib. Magneskim stearate, bulk, t.lib.	. 1646 .95	.1800 1.35
	unbleached, non-ret., dms., t.l., same bests	.28 14.00	-	Magnesium sulfate 10% Mg. tech. bgs., mixed c.t., 10,000-lb. min. works 100 lbs.	· 13.80	14,85
	Brazii	8.50 9.00	7.00 9.35	USP, cryst., boa., mixed cti	11.50	-
	Italian	11.60 11.25	=	10,000-16. min., works 100 lbs.	14.35	15.40
	Guatemaian, dms b. di-Leucine, dms., 1 kilo works kilo Licorice root, whole, bis	2.25 60.00 .40	90.00 .50	Magnesium suifate, 17% Mg, tech. bgs. (synthetic morrohydrate) t.l., 30,000 lb. min.,		
	gran., bis	.70 96	.90	works 100 lbs. bulk, c.l. 100,000 lb. mln.	18.25	-
	Lignoautionate (see under Ammontum fonate). Uma, chemical, pebble (quicklime).	or Sodiur	n lignin aut-	works	17.60 19.25	
	pulk, 60,000 lbs., works, f.o.b.	39.00	45.00	works100,000 jp. min.,	18.50	- }
	basiston	48.00	50.00	Magnesium tristicate, USP, powd., fib.	.38	- {
	bgs., same basiston Lime, NF, purif., 100-lb, dmsb, Lime oil, dist., Mexican, dmslb.	54.00 .69 6.00	57.00 	USP, micronized powd., dms., 376-lb. lots	.83 1.62	
	Heitlan, Gist., dms	8.00 17.60	Ξ	kilos, f.o.bkilos	3.20	- : (
	Lime salts (see Calcium).  d-Limonene, dr.s kilo	.70	.85	drums, tons, f.o.b kilos Maleic anhydride, bgs., t.l., works, frt. squald	2.80 .56	.50
	Linalooi ex bols de rose oil, dmsib. syn., 98-100% dms., worksib. Linalooi oxide, syn., 58-gal. dmib.	6.35 2.90 7.75	3.05	Mailo acid, purif, and food grades, 50-	,63	.84
	92%, dms	18.00	21.00	Mandarin oli (see Tangarina oli, Italian).	. <b>81</b>	9 3
	syn. 98-100%, dms., works, ib. Linalyi benzoate, syn., 55-gal. dms. ib. Linalyi cinnamate, syn., 55-gal.	2.80	3.15	Manganese acetate, dihvdrate, dms	8.00	10.00
_	Linslyi (ormete, syn., 55-gai, dyns., Ph.	59.85 7.78	8.50	tetrahydrate.dmst.ldivdib.	.43½ .48	, ko
•	Linalyi isobutyrate, syn., 55-gal,	6.50	6.55	Manganese borate printing ink drier ib. Manganese borate, tech., dms ib. Manganese oarbonate, chemical	.80	99
	tors, dma_frt_elidth	9 50	-	b, lots or more, works, th	1.05	
	99.9% tech., f.c.b. Niagara Fals, N.Y., 250-b. dma., t.l b. Linalyi propionate, syn., 55-gal.		· =	Mangariese chioride, anhyd., dms., 20,000-b. lots or more lb.	.61	
	Linden flowers, with leaves, bis, ib.	7.90 78	- 85	74%-76% MnO <sub>2</sub> , 100-lb, bgs., J., works.	200.00	
	Without leaves, bis. Lineaed meal (see Oils, Fats & Waxes in Lineaed oil, (see Oils, Fats & Waxes in	market rep	1.15 ort).		980.00 ·	300
	iankab	60	.67 .62	Menganese dioxide, syn., cryst., bat- tery grade, 90%-92% MnO <sub>6</sub> 100-lb, bgs., c.l., works b.	.70	47%
÷	worksbowd., bgs., c.i.,			sis	.49	
ı	Lithium bromide, anhyd., dms., tor lots, divd	6.27		Manganese hydrate dme., cityd ib	3,50	<b>. 38</b> i i
	Limium carbonate, powd., bgs., o.l.			Manganese hypophosphita, NF, dms b Manganese metal, electrolytic, No. 1	8.76	
	divid	. 9 45	e se a l'ingel. opinio	dms. o.l. works	143	
	soin., dris., al., t.l., divd,	2,94 4,90	***	drie, did		水では
_						5. 化水 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
					ومنالة والسور	

Manganese resinate, fused, 3½% Mn dris., frt. alid	7414	
Manganese sulinte, tertilizar grade	42	-
run-of-pile, 75%-78% MnSO., 25 kilo bgs., 50-ton care, divd.		
E. of Miss ton bulk, hopper cars. same basis ton Manganese suifate. 28% Mn., gran.,	170.00 145.00	Ξ
Mangariese tallate, liq., 6% Mn. dma	300.00	-
Mannitol, comi., powd., dms., t.l.,	.60	-
Works b. Marjoram, French b. Egyptian b.	3.02 ,84 .48	- .72
MBTS (see Mercaptoberizothiazole). MBTS (see Mercaptoberizothiazyi disuli	ide).	
MDI (see Diphenyimethane 4,4,-di-lacc Malamine, bgs., c.l., t.l., 40,000-b.	yanate) .51 Va	.59%
min., t.o.b., works b. bulk, c.L., t.l., same besis b. Melamine-formaldehyde resin, g.p., t.l.	.50	.58
frt. ald	.56 .814	.60
alā	.46½ .14	- .15
Gulf ports, same basis ib. Menthot, nat., USP, Brazilian large and	.14	.15
regular crystals, spot, cs., bulkb. syn., USP, racemic, 100-450 lbs. b.	6.75 9.00	7.50
2-Marcaptobenzothiazola, bos., t.l.,	1.25	1.55
works, frt. ald lb. Mercaptobenzothlazyl disulfide t.l., dms., works, frt. alid lb.	1.33	1.66
Mercuric chloride NF, gran., powd., 100-lb. dms., f.o.b. works., ib. Mercuric oxide, red, purif., 100-lb.	6.60	-
dms., f.o.b. works	7.00	7.25
sisb. yellow, NF, 100-lb. dms., same ba-	5.50 7.00	7.00 7.25
sis	5.50	7.50
Mercurous chloride (see Calomei). Mercury, ammoniated (see White precip		).
Mesityl oxide, tanks, divd	.45 .87	_
t.i., frt. equaid b. tanks, works, frt. equald lb. d-Methamphetamine hydrochloride,	.78	-
dmsb. di-Mathamphetamine hydrochloride,	12.00 4.50	16.00 7.00
dmsb. Methanol, syn., tanks, 4,000 gals., t.o.b. producing point, Guil	7.00	7.00
Coast gal. Methenamine (see Hexamethylenetetra	.52 mine).	.711/2
Methionine hydroxyenelogue, dry, 86% ectivity t.l., frt. elidlb. liquid, 88% ectivity, t.l. frt.	.86	-
alid	.88	-
Mathoxychlor, 50% wettable powder, dealers, dmsb. Mathyl abletate, non-ret. dms., c.i.,	2.05	-
divd. Eb. Methyl abletate, hydrogenated, non-	9.40	-
ret. dms., l.c.l., same ba-	10.00	-
Methyl acatoacetate, East, divd. bulkb. Methyl acrylete, tanks, divd lb.	. <b>85</b> 68.50	_
Methyl alcohol (see Methanol) Methyl amyl alcohol, (anks, divd lb	.55	-
Methyl n-amyl ketone, tks., divdlb Methyl anthranilate, tech., dms., f.o.blb.	.54½ 1.41	- 2.65
Methyl banzoate, dms., t.l lb. 99.9%, perf. crade, dms., t.l lb.	.25 1.85	-
Methyl bromide, dist., tanks, 140,000 bs. min., frt, alid b. Methylsellulose, premium, USP (vice	.58%	-
ibs. min., frt. alld ib. Methylcalluboss, premium, USP (visc. 400 through 4,000 cps) 50 lb. bags, tl., cl., 30,000 lb., min.,		
divd., zone 1	2.73	-
30.000 ipa., aiva., zone 1 ib.	2.86	-
Mathylcellulose, (visc. 400 through 4,000 cps) 50 lb. bgs., d., d., 30,000 lbs., dwd, zone 1: db.	2.24	· <b>_</b>
Methylosikulose (visc. 15 to 25 cps) 50 lb. bags, ti., cl., 30,000 lb. min., divd., zone 1lb.	2.52	_
Methyl chloride, Indust. bulk, tanks, f.o.b. worksb. Methyl chloroform (see 1,1,1-Trichloros		-
Methyl chicroform (see 1,1,1-Trichlorose Methyl chingmats, dris	12119). 4.65 6.00	-
Methyl ethyl ketone, tenks, divd, E ib. Methyl eugenol, 25-ib. cns ib.	.235 3.55	3.80
Methyl formate, pure, non-ret. dms., worksb.	.41 .29	-
tanks, same basis b. tech, tanks, works b. Methyl heptenol, syn., 55-gal. dms. b. Methyl heptenone, pure, dms b.	.31 14.50	=
mouty liggini cerdonate, orne	45.UU	-
Methyl p-hydroxyberizoate (see Methy Methyl longne, etd., dms b. Methyl Isoamyl ketone, tanks, dlyd.	1paraben) 7.30	9.40
Methyl isobutyl carbinol (see Methyl en	.61 .(Ioricolis iyn	-
divd. zone 2 (Calif.)	38	-
divd. zons 3 (W. of Rockies, ex- cluding Calif.)b. Mathyl isoauganol, 25-lb. cnsb. Mathyl mathyl and the second	41 6.60	10.40
Methyl naphthyl ketopa orust	02	-
Methylparaben, USP, 500 kilograms	14.00	-
tech., 500 kilograms, f.o.b kik Meihyl parathlon, tech., 80%, dos., its	9.70	-
Methyl oberviscetore store	. 1.65	5.40
plantb	1.26	Ξ
Cans	. E EO	<u>-</u> .
MRHWI sinjet /nee 2 4 Hard	1.79	1.94
Methyl violet (see Methyl roseanline o Methyl violet toner, molybdated, PMA bbls., dlvd. E. of Rookles, ib		<b>_</b> .
the state of the s	Annual P	
A second		1 1

	والمسائد والمسائد المسائد والمرساك					
hhis same hasis	aphthol <i>arylide</i> red (oner deep shades, bbls. ,	9.50	_			
4,4,-Methylene dianiline (p,p-di- aminodiphenyl methane)	loht shades, bbls	nn sall (1880 f	i sait).	CHEMIC		
crude, chris., Ll., 1.0.b 10. 1.75 - 17.N	iaphthol-5-suffonic acid (see L-acid) Iaphthol-5-suffonic 8-amino acid (see	e S acki).	_	VILIMIN	JA.	
Methylene di-p-phenylene di-isocyanate (see diphenylmethane a-Ni	ohthylamine suttonic mixed acid (see aphthylamine, tanks, f.o.b.		<sup>a</sup>	PRICES		
Methylene chloride, tanks, 4,000 gal	worksb. aphthylamine-5-autionic acki (see La	2.10 surent's acid	<u>0.</u>	IDDII:FC	<b>.</b>	
Methylpentanediol (see Hexylene glycol).	sphihylamine-4,8 disulfonic acid (see sphihylamine-1-sulfonic acid (see To		cia).	ILUIAFA		
5).	tafool oil, 20°F, Ll., f.o.b. works dms	.52	- (·	WEEK ENDING JUNE 6,	1098	—
Marthetithanine chloride (see Matheten hire)	tanks, f.o.b. works	.47 .52 .44	=		1000	
ib., bgs., c.l., worksb07½ ~ 40	tanks, f.o.b. works lb. 1°F, dms., t.l., f.o.b. works lb.	.48 .39	.49	Oleum (see Sulfuric scid, furning). Oliosnum gum, teers, bgs	2.10	_
druged moling 20 to 80 mesh	tanks, f.o.b. works b. silvered prices apply on shipments wi Philadelphia, Ps.; other sress, 11	tthin 300-mil	DIACEUS CI	Olive oil, edible, Spanish, dms gal. Italian B-type	8.00 5.10	=
paint or lacq., wet-grd., 325-mesh, bgs., c.i., f.o.b. works lb	higher and West Coast Sc. higher mycin suifate, USP, non-eterile,		i unus, Eu.	Olivine, crude, workston 20 mesh. workston	12.00 15.00	=
walipaper, bgs., c.l., f.o.b. works. ib	dma., 50-kilo, jots, activity ba- sis, divdkilo.	75.00	_	100 mesh, works ton Oplum. USP, gran, powd. 25-kilo	20.00	-
III DIEGOS, FDA, GIIKS,	xentyl glycol, slurry, 90%., c.l., t.l., dlydb.	.522	_	Orange oil, expressed, USP, Calit.	125.00	-
ieminating graces, rDA, terks, Nero	powder, flake, bgs. t.i., clivd lb. nl, tech., dms	.598 5.30	5.75	dms. 1.o.b. plantlb. expressed Valencia, dmslb.	1.20 1.00	1.20
Mineral oil, write, 50-05 vis., USP light   Ner	eri grade, drnaib. oil oil, NF French Bigarade,	4.60	5.00	Celli, dist., ons. f.o.b. plant b. Florida, dms b.	.40 .50	.55
tanks, refygsl. 2.38 - 65-75 vis., tanks, refygal. 2.42 -	botskilo	1150.00	650.00	Braziliankilo West Indian, bitter, NFX, cns.,	1.20	-
145-155 vis., tanks, refy gal. 2.53 - Nero	olidol syn. 55-gal. dms lb. oln, Bromelin kio	7.05 7.22	=	dmsib. Orange peel, bitter, Haitian blaib.	6.50 .38	-
200-210 vis., tanks, refy gal. 2.56 - Niac	cinamide, USP, t.l. dmskilo. cin NF, dms., 5,000 kilos or more,	8.00	-	Oragano, Graeca, 30M lb. Turkay	1.01 .92	1.03
	divd kilo sed-grade, 98-99.5%, bgs., same basis kilo.	7.50	- 1	Mexico	.60 35.00	.65 -
Houston, Tex. ,	kel acetate, dms., 5.000-lbs. to t.l.,		5.50	Orris root, Florentine, bls	4.60 4.60	5.00
Mineral spirits, petroleum, regular, tanks, New Jerseygal. 1.41 1.49 Nici Houston, Texgal. 1.41 1.43	divd. E.,		_	Verona bisb. powd., bbis., bxsb.	3.00 4.60 3.25	5.00
Molybdate orange, bbls lb. 1.52 1.95 Nici	ibs. to t.i., divd. Eb. kel chloride, bgs., 10,000-fbs. to t.i.,	_	-	Ourioury wax, refd., pure, bgs b. Oxalic acid, bgs., c.l., works b.	3.25 .44	3.35
	divd. E	1	-	b-Oxynaphthoic acid dms. works,	2.55	-
Motybdenum trioxide, CP, dms., works, 24,000 lbs. or more.lb. 5.25 – Nici tech., chemical, dms., 24,000 lbs. or	divd. Eb. kel metal, electro cathodes, cs., worksb.		_	Oxyquinoline base, pure, 1,000 lbs., frt. alid	8.00	-
more, bests,	kel nitrate, drns., bgs., t.l., divd. E		_	Oxyquinoline sulfate, 100 ibs. frt.	4.00	-
Molybdic acid (See Ammonium Dimolybdate)  No Monoammonium phosphate, fert.	kel oxide, 75%-78% NI, dms., 500- ib. lots, f.o.b, works ib.		_			
grade, min. 13% N. 52% P. Nic	kel sulfate, bgs., t.l., dvd. E lb. otinic acid (see Niacin).		.90			
works ton 155 00 - Nic	cotinamide (see Niacinamide). ric acid, 38° Be., 38°Be, 40°Be,	_				
bgs., c.l., t.l., works, frt.	42°Be. tanks, c.l., works NF,	195.00	_			
food grade, bgs., c.l., t.l., same ba-	, tanks, works بر 98% HNO tanks, works 100% basis		-	Palledium metal, works Troy-oz	109.00	-
Mono-tert-butyl-m-cresol, bulk, t.l., lb. 1.89 - 0-N	Vitroaniine, fiake, dms., t.i. worksb.	. 1.51	_	Palm oil, (see Oils, Fats & Waxes Mark Palm oil acid, dbl-dist. dms ib.	.311/2	-
Monochloroacetic acid, purif. (see Chloroacetic acid, mono).	molten, rafd., tanks, works lb. molten, tech., works lb.	. 1.37	=	tanks, b	.42	.45
Monoethanolamine, tanks, frt. alid.	vitroaniine, orange toner, bgs., frt. ald	. 1.90	-	tanksb. Palm kernel oii, bulk, c.i.í., U.S. porisb.		- .14
Monoethylamine, 70% aqueous tanks,	vitroaniline, dms., c.l., t.l., 30,000 ib. min., works b. vitroanisole, 100-kijo lots kilo	1.63	-	Palmarosa oli, Indian dms		-
Monoisopropanolamine, dms., c.i., frt.	robenzene, tanks, (.o.b	33	.34	tanks	.51	-
ald. E	f.o.b b. anks, same basis b.	. 82	-	Imp. bulk		-
c.l. rri, prepaldb79 –	iltro-p-crosol, tech , dms., t l., trt. ald		_	Spanian, 110 AU bgs b. Paraffin, rully-retd., 127-130 F., ASTM,	.87	-
Monometrylamine, arinyd., tanks, con-	roethane, tanks, divd. E tb. rogen solutions, direct application,	. 2.50	-	tanks, rely	.29 .33\4	.35 .39
tained basis frt. equald lb	over 32% N, and migf. type, works unit-ton.	. 1.20	_	140-145 F., ASTM, tanks, rely. 150-155 F., ASTM, tanks, rely.	.35	.411/2
40-60% soln., tanks, frt. squald.	direct application, 19-32% Nunit-ton.	. 1.26	1.48	slack wax, 5% oil, tanks refy 12% oil, tanks refy	.19	-
Monopotassium glutamate, dms., 990	trogenous sewage sludge, proc- e s e d , b u l k , f . o . b .			20% oil, tanks refy	.16	ASTP.
b. or more, frt. ald lb. 2.50 - Nonosodium glutamate, 50-lb. bgs.	Chicago unit ton. OTE: Price is per unit NH <sub>3</sub> plus \$1, p	. 4.10 per unit a.p.a	a, bulk, f.o.b.	Paraformaldehyde, 91%, flake, bgs. c.l., t.l., divdb.	.29%	
	producer,s works, Chicago. rogenous tankage, processed, bulk, per unit-ton NH <sub>3</sub> , f.o.b. Carrol-	<u>.</u>		95%, powd., bgs., c.t., t.l. dvd. b. Paraklehyde, tech., 96%, 55-gal. dms.,		
Monosodium phosphate (see Sodiumphosphate, monobasic).  Montan wax, crude, imp., German , b	Mile, Wiscunit ton	n 7.00	=	tanks, divd. E	.581/2	
shipt, pt	expanded, bulk, o.l., per unit-ton N, f.o.b. Forrestdele, R.I. unit ton		_	Parathion, ethyl, dma., frt. alid ib. Parathion methyl (see Methyl parathior Para toner red, bbls ib.	1.75 I).	-
Morphine alkaloid, NF, 25 k lots kilo 1018.00 - Nito Morphine suffats, USP, 25 k lots kilo 850.00 - 0-N	romethane, dms., Ll., dvd. E lb. litrophenol, dms., f.a.b. works lb.	. 2.37	-	chlorinated, (red 4) kgs lb.	3.75	Ξ.
Morpholine, dms., c.i., frt. alid. E ib. 1.02 - p-N	litrophenol, dms., c.l., f.o.b. worksb.	1.05	1.45	Patchouli oil, Indonesian., dms kilo Peach kernel oil, USP (see Apricot kern	ei cē).	22.00
Muriatic acid (see Hydrochtoric acid). 42-N Musk. syn., ambrette, 25-lb. cns lb. 6.00 7.00 m-1	itiropropane, tanks, trt. alid. E ib. Narotolusne, tech., ding., frt. alid.[b.	55 1.1 <u>5</u>	-	Peanut meal (see Oils, Fats & Waxes man Peanut of (see Oils, Fats & Waxes man	ket report).	٠ <u>.</u>
Musk. syn., xylol, dms b. 3.60 -	vitrotoluene, dms., c.l., f.o.blb. tanks, same basis	48	.57	Pectin dom., NF, clirus, powd., 100- kilio lots divd.	3.30	3.70
Mustard oil, syn. (see Aliyl Isothiccyanate).  Mustard seed, Brown No. 1	Nitrotoluene, tech. dms., c.l., worksb.	83	.65	Pelargonic acid, nat., tanke, min. frt.	.70	-
Canadian No. 1 Yellowib25 - No   Oriental No. 1 bgs1b25 - No	tanks, worksb. mytphenot, tanks, f.o.b. E. of Rock-		-	syn., tanks, f.o.b. frt. alid, ib. Penicilin, potassium, non-sterile, 200-		45.00
Myrcia cil (see Bay off). Myrietic acid, comi., pure, t.t., bgs lb. 1.30 - No	ies, min. frt. siidib. prephedrine hydrochloride (see Ph	ı49 henyipropen	.5312 -yri enimalor	billion-unit lots, billionunits Penicilin, proceine, sterile 50- billion	·	25.00
tanks	drochloride) utmeg oli, dist., East Indian, NF			unit lots, bulk billion units Pennyroyal oil, drns	5.90	Ξ.
Myrth gum, bgs	dmakik utmegs, East Indian, wholeib	6 26.00 5. 2.15	27.50 2.25	Pentachlorophenol, 50-lb. bgs., t.l. 1.o.b. Wichite, Kan ib.	. 55	-
		. :		Pentaerythritol, tech., bgs., c.i., f.o.b., frt. aldb.	.71	.72
				Pentaerythritoi, di- and tri-isomers (se Tripentaerythritoi). Pentaerythritoi triacrylate, t.i. dms.	-	учино еги
				f.o.b. works	1.60 .	_
Machine high advantage Calculation and the second		<del>النوريب س</del> د		Pentoberbital, dms., 100 lbs. or more, frt. elid	7.00	
Naphtha, high solvency (see Solvent naphtha; petroleum). Naphtha, petroleum, cleaners (see Cleaner's naphtha). Oc	chre (see Iron codde, yellow, nat.)			or more, divd	14.00	-
Naphtha, VM&P, petroleum, tanks, New Jersey and New York-	colea cymbarum oil dins b. Ocladecanol, syn., tanks, f.o.b ib.	4314		Pepper, black, Brazilan, bgs	32.00	-
Houston, Tex	Octanol, syn., tenke, f.o.b b. Octano, 97% min., tenks, f.o.b.	70 I. 6.25		Lampong, bgsb. Malabar, bgsb.	2.08	
Nephthelene, crude, dom., 78°, tanks, worksb22 - Oc	Houston, Tex		1.1	Tellicherry bgs	2.40 85	-
Naphthalene, phthalic anhydride grade, tanks, works ib 231/2	cnsib. Ootyl, n-decyl phthalate, tanks,	1.40 .331/4	1.75 37	Haimen bgs b.	1.00 .78	ì
Naphthalene, petroleum, 80°C., f.o.b	dwdb. rt-Octylamine, dms., c.l., t.l., wor Octylphenol, molten. t.c.,	rks. 2.60	- "	Indian, S-4, bgs	.68	. 😐 :
Naphthalene, reid., belle, flakes, whole salers, jobbers, dms., works. fb. 65 ,77 Ci	worksb.	.75	.761/a .67	Pepper, white, Muntok, bgs , . ib. Peppermint leaves, imp., dms ib.	2.68 2.65	14.50
Atachthania anid agula hulk works ib 16 .92	TRINICA	56	.59 .53	Peppermittell, Madras	13.00	14.50 14.00
refined, 220 acid, same basis ib75 . 1.90 Ct a-Naphthol, ground, data, Ll. dvd ib 1.61	eic acid. dbl. dist., (white), dms lb. tenke lb. isic acid, a.d. (rad) dms lb.	38 43	.44 .49	I Wilametin	31.00	13.50
h Nighthal task flata Bills 200 at	AM DAY "O-11" (LON) Mallo:					
b-Naphithol, tech. flake, 80-lb. bgs., c.l., works	tanka	.00	J. 10.	Yakima	8.50 7.00	9.00

•					307,000
lb. lb.	9.50 7.75		AUELIA		
ackd).	1 880) (1580 i	R sait).	ii Laemii	-4	
(800 (	8 ackl). Clave's acl	kd).			
o.b. . ib.	2.10		DDICEC	١ .	
d (888	irent's ack Casselfa s		PRICES		ľ
rks . Ib.	iles acid). .52	_			
b.	.47 .52	-	WEEK ENDING JUNE 6,	1986	
ib. B).	.44 .48	_ .49	Oleum (see Sulfuric ecid, furning).	0.40	
b.	.39	le radius of	Olibanum gum, teers, bgs b. Oliva oli, eolibie, Spanish, dms gal.	2.10 8.00	=
	kc.higher;	Texas, 2c.	ttalian 8-type	5.10 12.00	_
ile, ba-			20 mesh, works ton 100 mesh, works ton	15.00 20.00	=
ilo. t.i.,	75.00	-	Oplum. USP, gran. powd. 25-kilo lots	125.00	-
. Ib. . Ib.	.522 .598		dms., t.o.b. plant lb. expressed Valencia, dms lb.	1.20 1.00	1.20
. lb. . lb.	5,30 4,80	5.75 5.00	Calif., dist., ons. f.o.b. plant lb. Florida, dims lb.	.40 .50	.55
	560.00 150.00	1650.00	Braziliankilo West Indian, bitter, NFX, cns.,	1.20	-
.ib. kilo	7.05 7.22	=	drnsib. Orange peel, bitter, Haltian blaib.	6.50 .38	_
kilo. ore,	8.00	-	Oregano, Greece, 30M	1.01 .92	1.03
kilo ame	7.50	-	Mexico	.60 35.00	.65 -
kilo.	5.10	5.50	Orris root, Florentine, bis ib. powd., bibis., bxs ib.	4.00 4.60	5.00
. lb. 000-	1.82	-	Verona bisb. powd., bbis., bxs	3.00 4.60	5.00
b.	3.45	-	Ourloury wax, reid., pure, bgs b. Oxalic acid, bgs., c.l., works b.	3.25 .44	3.35
ib.	1.19	-	b-Oxynaphthoic acid dms. works, tech	2.55	-
lb. cs.,	1.61%	-	Oxyquinoline base, pure, 1,000 lbs., frt. alidib.	8.00	_
ib. dlyd.	3.45	-	Oxyquinoline suifate, 100 (bs. frt. alid	4.00	-
lb. 500-	1.18 2.60	-			
1b. 1b.	.80	.90	1		
)°Be,					
NF 100	195.00	_	1		
orks lon	280.00	-	Paliedium metal, works Troy-oz.	109.00	-
t.l. lb.	1.51	_	Palmoil, (see Oils, Fats & Waxes Marki Palmoil acid, dbl-dist, dms b.	.311/2	-
lb. lb.	1.44 1.37	Ξ	tanks,	.42	.45
. frt. íb.	1.90	-	tanksb. Palm Kernal oli, bulk, c.i.i., U.S.	.35	-
00 lb.	1.63	-	Palmarosa oli, Indian dms kifo Palmarosa oli, Indian dms kifo	.11 36.00 .53	.14 -
. kilo lb. c.i.,	8.75 .33	.34	Palmitic acid, 90%, tech., bags ib. tanks	.51	-
. ib.	.82 .74	-	Imp. bulk	56.00 .84	Ξ
tri.	1.75	_	Spanian, 110 AU bgs ib. Paraffin, fully-retd., 127-130 F., ASTM,	.87	-
Ib.	2.50	-	tanks, refy	.29 .33\4	.35 .39
type, t-toп.	1.20	_	140-145 F., ASTM, tanks, refy. 150-155 F., ASTM, tanks, refy.	.35 .41/2	.411/2 .46
-32% t-ton.	1.26	1.48	slack wax, 5% oil, tanks refy 12% oil, tanks refy	.19 .21	=
. b .	410		20% oil, tanks refy	.16 Nigher than	ASTP.
	4.10 Frunit a.p.	a, bulk, f.o.b.	Paraformaldehyde, 91%, flake, bgs. c.l., t.l., divdb.	.29%	_
go. bulk, Brrol-			95%, powd., bgs., c.t., t.l. dvd. b. Paraidehyde, tech., 96%, 55-gal. dms.,	.391/2	-
it ton	7.00 6.75	=	tanks, divd. E	.581/2	_
on N, it ton	8.35	_	Parathion, ethyl, dms., frt. alid b. Parathion methyl (see Methyl parathion		-
lb. lb.	2.37 1.00	Ξ	Para toner red, bbls	3.76 3.75 20.00	92.00
.o.b. <b>i</b> b.	1.05	1.45	Peach kernel oil, USP (see Apricot kernel Peanut meal (see Oils, Fate & Waxes m	ei cë).	22.00
Rb. Id. [b.	.55 1.16 85	-	Pagnut oil (see Oils, Fats & Waxes mark Pactin dom., NF, clirus, powd., 100-		•
lb. lb. c.i.,	.85 .48	.57	kilio lots divo	3.30	8.70
ib.	.83 .70	. <b>65</b> _	elid	.70 .70	Ξ
lock- lb.	.49	.631/2	Penicilin, potassium, non-sterile, 200- billion-unit lots, billionunits	20.00	25.00
es Phys	Bullikoben	nolamine hy-	Penicilin, proceine, sterile 50- billion- unit lots, bulk billion units.	36.00	_
NF,		27.50	Pentachiorophenol, 50-lb. bgs., t.l.,		<del>-</del> .
b.	2.15	2.25	Pentaerythritol, tech., bgs., c.i., f.o.b.,		
			Pentaerythritol, di- and tri-isomera (see Tripentaerythritol).	.71 e Dipentaer	.72 thritol and
٠		•	Pentaerythritol triacrylate, t.l. dma., f.o.b. works,	1.60	_
			Pantoberbital, dms., 100 lbs. or more, frt. alid	7.00	<u>:</u>
3			Pentobarbilal-sodium, dms., 100 lbs. or more, divdb.	14.00	_
.) b.	2.26 .434		rentylene tetrazol, Nr., Ome., 200-kilo	32.00	÷
. lb. .d.b.	.70		Pepper, black, Brazilan, bgs sb. Lampong, bgs	1.98° 2.08	-
. gai. cota.,	6.25	<u>.</u> .	Melabar, bgsb. Tellicherry, bgsb.	2.05 2.40	=
. ib. Inks,	1.40	1.75	Pépper, red Chinese Fukien rice bgs b. Haimen, bgs b.	.85 1.00	Ξ
ib. . work	,337 (8. 2.60	37	Liling, bgs	.78 .69 .43	. <u>.</u> :
t.c., .,b. .,b.	.75 .63	.76% .67	Pepper, white, Nuntok, oge	2.68	
. Ib.	.63 .56 .46	1 59	Peppermirit oil, Madras	13.00	14.50
.b.	38 43	.44	Yakma	31.00 8.50	13.50 10.00
. , b.	35	A1	Williametto III, Yakima Bo Byri, dries (o.b. works ) Bo Byri, dries (o.b. works ) Bo	7.00	9.00

CHEMICAL PRICES
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PHICE	5		Prinalysuracetamide, dms., 500- kilo. lotskilo. Picolines, reid, mixed, bulkkilo.	6.61 2.81	-
WEEK ENDING JUNE			Picric acid, pure paste, 25-lb. ctns., c.i., dry basis, f.o.b. Charlotte, N.C	6.00	_
Perchiorosity/ene, dry cleaning grade		,	tech., paste, 25-lb. ctns., t.l., dry ba- sis, f.o.b. Chartotte, N.Clb. Pigment green B, kgslb.	5.00 2.20	-
distr., tanks, divd	28	V <u>*</u> –	Pilocarpine hydrochloride, USP, dms	_	2,000.00
divid	31 . 2.56	-	Pimento see Alispice Pimento seaf oi, dms	14.5D	-
saits, dms., irt. alid ib. barium saits, same basis ib.	5.25 5.25	=	bulk, t.o.b. works. , 100 lbs dms., c.l., t.l., same	47.00	53.00
Peru balsam, f.o.b. lb. Petitgrain oil, Paraguay	5.75	6.25	basis 100 lbs a-Pinene, perfume grade kilo tech, grade	51.00 1.18 .16	54.00 - .22
c !., refyb. tanks, refyb.	.375 .310	- (	b-Pinene, perfumery grade, tanks kilo- resin grade, tanks	1.90	-
USP, soft white, dms., c l., refy lb. tanks, refy	.310	- 1	Piperazīrie, anhyd., dms., t.l., frt. alid. E	1.80	-
Petrolatum, USP, Lilly white, tanks,	305		Piperazine dihydrochloride, 53%,	2,25	2.35
USP, cream, dms., c.i., rety	.365 .30 .350	_	dms., t l., frt. alldlb. Piperazine hexahydrate, 44%, dms.,	2.00	-
USP, soff yellow, dms., c.l., refyfb. tanks, refy	.285 .345	_	1,100-lb. fots, frt. alid lb. Piperazine phosphate, 42%, dms., t.l., frt. alid lb.	1.60 1.60	-
tanks, refy	.280 n).	-	Piperidine dist. 98% min., dms., c.i., t.f.,	6.92	_
cont., HMW, bulk, works ib. MMW, same basis	.48% .49	.49	Piperonyl butoxide dms., divd. E fb. Pietinum, metal, works Troy oz. Polycarbonate resin, peliets, nat., t.i.	5.00 421.00	-
LMW, same basis	.49 Per Ito. fow	.4914 er on corrø-	frt. alid	1.84	1.86
Phonacetin USP, powd., 200-lb. dms., 1,000-lb. lots, divd lb.	2.20	_	thophthalic, bulk, tankcars, frt. alid	.51 .56	.53
100-lb. dms., 1,000-lb. lots, divd. lb p-Phenetidine, dms., c.i., f.o.b lb. Phenebarbital, USP, dms., 500-kilo	2.22 2.00	2.45 -	Polyethylene resin, high-density, blow moiding, g.p., hopper cars, frt.	.50	.62
tots., (.o.b. works kilo Phenobarbitel-sodium, NF, 500-kilo	19.50	-	alid	.43	.46
lots, f.o.b. works kilo Phenoi, syn. tanks, frt. equald b.	27.00 25	.29	extrusion, g.p., hopper cars, same	.43 .47	.46 .48
p Phenofsulfonic acid, 65% solin, dims., c.l., fob works ib. lanks, same basis ib.	64 .58	Ξ	wire and cable, nat., hopper cars,	.45	.49
bags. c.l., Lo.b. works	2.33	_	wire and cable, black, same ba- sis	.55⅓	.57
purif. grade, same basis	2.69 1.04	-	iner, hopper cars, frt alid ib.	.36	-
Phenylacetic acid, pure cryst., 25-fb.	4.50	-	aid	.37 .35	-
dl-Phenylalanine, dms., 25-kilo lots	84.00	-	extrusion coaling, hopper cars, same basis	.38	- .42
m-Phonylenediamine.cast_dms_c:	3.45	-	g.p., hopper cars, same basis ib. Polyethylene linear low-density g.p. resin	.38	.42
U. f.o b.works b o-Phenylaned amins, flaked, dms . l., f.o b. works b.	2.07	-	blown film rosin casi film resin	.36 .40 .40	.40 .43\ <sub>2</sub> 45
Lo.b. works	3.25 4.00	-	Polyathylene resin, low-density injec- tion molding, g.p., hopper cars, same basis tb.		
Phenylephrine hydrochloride USP 100-kilo lots or more kilo. Phenylethyl acetata, dms. b.	175.00	185.00	wire and cable thermoplastic high-	.45 .647	.48 -
b-Phenylethylamine, dms. 30,000 hs	3.35 2.65	3.40	voltage, natural color, same basis b. wire and cable, XLPE low voltage,	.70	.741/2
or more, frt. aldb. Phenylethylphenyl acetate, 25-ib. cns	1.50	-	14% carbon black, same basis	.67ó	.721/2
Phenyllyconic acid (see Mandelic acid).	5.50 3.50	6.90	Wire and cable jacketing, black lb.   Polymyxin sulfate, USP, butk, 50-billion	.587	.667
1-Phanyl-3-methyl-5-pyrazolone, dms., 250-b. lots divd. E ib. o-Phenylohenol, dms., t.l., works ib.	1.80	-	units min million units Polyoxyethylene sorbitan monos- tearate, dms., 20,000-lb. lote	.52	-
ormore, works.	1.35 1.85	2.00	Works	.73	-
Phenylpropanolamine hydrochloride, 100-kilo dmkilo Phenylsalicylate, purit. cryst., dms.,	24,00	28.00	dris., 20,000-lb. lots, worksb. Polypropylene resin, homopolymer,	.73	-
techcrystE	2.75 2.25	-	g.p., nat., i.r., irt. alid ib. copolymer, med. impact. nat	.45	.48
Rake, E. Ib. Philoxine Loner (red 90), dms., irt. alid. Ib.	2.35	-	same basis ib. high impact, same basis ib. Colored material 6c. per lb. tigher for	.50 .53	.56 .60
Custoffiles works 5 to 9-cyl	1.95 .55	2.05 .87	each grade. Polyatyrene resin, cryst., nat., honner		
Phosphate rock, Fia., land pebble, run of mine washed, 66-68% b.p.l. bulk c.l. mines			cars, frt. alid b. ib. Impact, nat., hopper cars, same ba- sis b. ib.	.46 .51	-
Phosphoric acid, com'l, and tech.	23,15 28.00	Ξ	nigh heat, high impact, nat., hop-per	.52	-
grades, 75% tanks, works	29.00	_	expandable beads (EPS), okgling grade, 1,000-lb. lots b. modified, same basis. b.	.69 .73	_
65%, N.F. tanks, f.o.b. freight	31.00 33.50	-	medium viscosity, has, +1		
Food grade prices \$2.00 above tech. gr Phosphoric acid, agricultural grade, 52-54 % a.p.a., tanks,	ade.		partially hydrolyzed, medium viscos- lty, bgs., t.l., divd b.	1.00	1.05
works	3,10	-	polymer dispersion, bas, 11	1.00	-
basis	3.45	-	divd	.50 .38	-
Phosphorus oxychloride, tanks, fet.	1.00 .91	Ξ	im grade, bulk, same basis b.	.30 .47 .37	- .47
Phosphorus pentasulfide, powd. drs. cl., works. 100 bs.	.40	-	Polyvinyl chloride, g.p. copolymer dis- persion, same basis b. g.p. copolymer suspension, same	.58	.61
Phosphorus pentoxide dime 1	50.00 45.00	Ξ	Poppyseed Dutch has	.45 .38	.49 .37
Phosphorus sesquisufide, dms., cvs.,	.82	-	Potash agricultural (see Potasalum murial Potash, caustic, Eq., 45% haste tanks	==	-
works	.38 .40	-	West Coast, 50% backs, lanks	13.00	-
Phthetic achydride, fiske, c.l., t.l. dow	.35	-	reg. fiske, 58-92%, 400-lb. dms., c.l.,	18.08	-
frt, oquald	.30 27, at Coast	.335 .305	works F.	42.35 .90	- 1.31
bbis. In aid F. of Rockies		-	bgs., c.l., works	.31%	
green shedo, seme basis b. resinated, bbis., same basis b.	8,10 6,40 6,20	9.50 8.50 8.75	Orns., L.L	.72	
38 CHEMICAL			Files Carl CT, WOLKS B.	.48	-
	-1		EPORTER June 9	, 1986	

due toner, water dis-			Potassium biffuoride, tech , dms , t.l.	.45	49
e, bbls., same ba- ib. reen toner, all grades,	7.05	7.75	works , irt. equald lb. Potassiumbitartrate, NF, gran , powd., bgs lb.	.90	1 20
t. and. E. of Rock-	8.10	10.10	Potassium borohydride, powd. dms., 100-1,000 lbs., works lb	18 00	20.00
reen toner, resinated, ma basis, fb.	7.45	9.20	Potassium bromate, gran., powd., 200-lb dms., c.l., f.o.b	10 00	-0.00
mide, dms., 500- kilo 	6.61	_	worksib Potassium bromide, NF., gran , dms.,	1.06	-
ixed, bulk kilo aste, 25-ib. ctns., c.i.,	2.81	-	c./ f.o.b. works lb Potassium carbonate. lig., 47% K <sub>2</sub> CO <sub>1</sub> ,	† 12	-
s, f.o.b. Charlotte, ib. i-b. ctns., t.l., dry ba-	6.00	-	tanks, t.w., works 100 lbs dms., c.l., l.l., works 100 lbs.	15 40 20 65	
Charlotte, N.CIb.	5.00	-	calcined, 99-100% k <sub>2</sub> CO <sub>2</sub> , hopper cars or trucks,		
kgslb. chloride, USP, kilo.	2.20	2 000 an	works 100 lbs bgs., c.l . I.l., works 100 lbs.	32 50 36 40	-
ice ms	14.5D	-	Potassium carbonate, hydrated, 83-88% K <sub>2</sub> CO <sub>2</sub> , dms., ct., t.t.,		
n. alcohol content, b. works 100 lbs	47.00	53.00	bgs., c.l., i l., works 100 lbs.	34.90 33.70	-
t.f., same 100 lbs	51.00	54.00	Potassium carbonate, gran , purif., 400-lb. dms., 5-dm. lots. lb Potassium chlorate, cryst., dms., c l.,	40	46
gradekilo	1.16 .16	.22	works	.14½ .30	-
ry grade. tanks kilo- ks	1,90 .86	Ξ	purif., gran., 325-lb. dms., 1.o.b. shipping point	40	_
., dms., t.l., frt. alid. lb. 36%, dms., 1,100-	1.80	-	Potassium chloride, chemical grade, 99.95% KCI, bulk, c.I., f.o.b	40	
. alid	2,25	2.35	workston USP cryst. dms	105.00 1.12	-
frt. alldlb. ydrate, 44%, dms.,	2.00	-	USP gran., dmsb. USP powd., dmsb.	,67 ,67	-
ots, frt. alid lb. ate, 42%, dms., t.l.,	1.60	-	Potassium chlorida, agricultural (see Po Potassium chromate, purif., cryst.,	lassium mu	nate)
6 min., dms., c.l., t.l.,	1.60	-	dms., works lb. Potassium cirate, NF. gran., 200-lb.	.57	-
dms., divd. E fb.	6.92 5.00	<u>-</u>	dms. frt. alid ib. Potassium cyanide, dms., 20,000-lb.	,931/2	-
orks Troy oz. n, peliets, nat., t.l.,	421.00	-	iots or more. f.o.b. works lb. Potassium dichromate (see Potassium	1.32	-
saturated, g.p., or- ic, bulk, tankcare,	1.84	1.86	bichromate). Potassium (luoborate, tech., dms., c l.,		
basia lb.	.51 .56	.53 .62	t.i., works, frt. equaldib. Potassium fluoride, anhyd., dms., t.i.,	1.40	1.42
high-density, blow p., hopper cars, frt.	.50	.02	Potassium gluconate, dms., t.i., f.o b. worksib.	1 68 1.45	-
ding, g.p.,hopper	.43	.46	Price W. of Denver 4c. per lb. higher. Potassium gualacolsulfonate, 300-lb.	1.45	-
o	.43	.46	dms., 600 lbs. or more frt.	2.10	_
nat., hopper cars,	.47	.48	Potassium hydroxide, tech. (see Potash Potassium hydroxide, USP, pellets.	, caustic).	
b. black, same ba	.45 .55⅓	.49	frt. equald	1,29	1.31
, low-density, film or cars, frt alid lb.	.36	.57	Potassium lodide, USP, gran., cryst., dms., 1,000-lb, lois divd lb.	10.72	12.39
opper cars, frt.,	.37	_	ACS grade truckload ib Potassium-magnesium suifale, std.,	11.32	13.55
ilm, hopper cara,	.35	_	bgs, works	59.00	-
ling, hopper cars, lb.	.38	.42	MgSO <sub>4</sub> bulk, works ton Potassium matabisulfate, gran , drns	67.00	-
rs, same basis lb. r low-density g.p.	.38 .36	.42	Potassium muriate, 60-62.4% min. K <sub>2</sub> O. std., bulk, c.i.,	.44	-
	.40 .40	.40 .43\/ <sub>2</sub> 45	Canada	44.00	45 QO
low-density injec- ng, g.p., hopper		10	Sask	46.00	47.00
basis	.45 .647	.48 -	gran. f.o b. Sask ton	49.00 50.50	50.00 51.50
ihermoplastichigh- itural color, same	~~		ton c.l., divd. SE ton	267.00	274.00
	.70	.741/2	prilled	277.00	284.00
acketing, black ib.	.67ó .587	.72½ .667	divd.,ton Potassium oxalate, neutral. lech., fine gran., powd., 300 lb. dm., frt.	470.00	-
ISP, bulk, 50-billion million units	.52	-	equald. ib. Potessium pentaborate, gran, bgs.	2.54	•
sorbitan monos- 1s., 20,000-lb. lota,			dms., same basis.	1.01 1.06	-
orbitan tristearate 0,000-lb. lots	.73	-	Potassium periaporate powder 15c. po	rlb. higher,	-
in, homopolymer	.73	_	Potassium permanganate, free flow-	.78	-
i., frt. alid lb. impact, nat	.45	.48	works.	1.09	_
same basisib.	.50 .53	.56 .60	150-kg. dms., same basis ib.	1.20 1.17	-
ic per lb. higher for ).			Potassium permanganate, USP, 50-lb. kgs., works, c.l., t.l lb. Potassium persulfate, 225-lb. dms.,	1.38	_
ryst., nat., hopper id	.46	-	24,000 lbs. or more, f.o.b. plant,	70.00	
pact, nat., hop-per	.51	-	ci/ti same basis	78.80 72.50	-
Dasis	.52	-	Dgs., C.I., T.I., Works, E., frt.	43.75	47 AE
50-10. 101810. 1518	.69 .73	=	Potassium salicylate, USP, gran 200-	46.00	47.25 49.50
fully hydrolyzed, iscosity, bgs., t.l.,	4.00		works, irt alld	1.52	_
ed, medium viscos I., divdb.	1.00	1.05	Or more, same basis	1.42	_
resin, g.p., homo- spersion, bgs., t.i.,	1.05	-	Be., 2.5 ratio, t.c., 1.1		
n, bulk, same ba	.50	-	works	12.40 16.40	14.26 -
same basia b.	.38 .47	-	40-40.5 Be., 2.1 ratio, t.c., t.1., works. 100 lbs. Potassium sticate, 40-40.5 Be., 2.1 ra-	16.40	18.85
same basis ib. g.p. copolymer dis- une basis ib.	.37	.47	tlo, dms., c.l., t.l., works 100 lbs. electronics grade, 30-30.4 Be.,	20.40	_
suspension, same	.58 45	.61		-0.70	
ogsb.	.45 .38 .30	.49 .37	Potassium silicate, dms., c.l., t.l.	17.10	19,65
<b>(800 Polassium muria</b> , 45% basis, tanks,	ie).	-	solid or glass, 2.15 ratio, dms., c.l.,	21.10	-
50% basis, tanks	13.00	-	"Ratio" indicates percentage by welg	35.00 ht of SIO <sub>2</sub> (	divided by
6, 400-lb. dms., c.l.,	18.06	-	Potassium elicofluoride, bgs., c.l., t.l.,		
NF, gran., dms., t.l.	42.35	-	Or DOWN! down	.111/2 en	.15
nate, tech., gran.,	.90 .81%	1.31	Potassium slavesta, t.i. dins,. divd  b.	.80 2.20 N.A.	1.20 3.10
Male, USP, gran.,	.72	, <del>"</del> # <u>1</u>	min. 60% K <sub>2</sub> O. std. bulk oil	F .	· . <del>-</del>
iele, gran., 400-lb. L. works b.	.48	_	f.o.b. works ton Potassium sulfate, gren., purif. 400-ib.	150.00	160.00

Pota-commeterals rate grant, bits of to works	140		•
thus, same trees. He Pota sound effective and retrained at the per Potas sound through the Unit cryst.	1 10 1.15 tivi higher	-	
tech cryst does it. B	4 01 62	:	
Polassium Idamium Buoride Tech	714	-	
dons 11, works fit equality Polassium zircenium familie tean dons 11 works fri	1 24	1.59	
equald g Preduction USP during bloker of more grain	.78 1 03	•	
Producation a state 1632 due, 5 kilosorusco gram Preducateus, adiya 1832 due, 5	1 12	-	
kdosormore grani Procame hydrochlerich 1959 anido	1 12	-	1
kats, fit and gs Procone hydrox (Ass. 15	4 95	575	
HSP, impale quale, due 1 bgt) th lots fit ald the Proponal debyde taoks forb the	4 95 35%	5.50	
Propose acid, syn , princ tanks, alsed to Propylacetalic tanks, dead to	33 53%	34%	
n-Propylak okol tanka, doct (h. n-Propylap Palo dun (100 to 2 000 to lota, doct (h.	42 11 50	.44	ļ
n-Propyl-p-hydrocytenzoste 11545 500 kilos kilos tech 500 kilos, fo b kilos	10 80 10 36	-	
Propyl paraben (see a Propyl p hydroxy Propyl theoracit days 50 kilo loby or	(alsovneda)	•	
n-Propylamina dins   c   divi   lic Propylamina dins   c   divi   lic Propylame   polymer grade   f o h   Tos	55 00 75	60	
and La Gulf Coast points (b) chemical grado same hasis (h) Propylene glycol, indust (lanks flot) (h)	1712 1534 40	16 41	
Propylene glycol monomorbyl ether lanks, divide	43 49	.44 _	_
Propylene oxide, tanks, finith works, firt equality in Psyllium seed, USP powerty; in	47';	1 75	ð
Puince, dom, fine, 4F-0 tags, ton for medium, 012-112, tags, ton for for	270 00 300 00	-	
coarsa, 2-oxha roarsa, hgc, ton	300 00		
Pumico, imp., Italian, fines, bsp., for lots flob East Coast ton medium, bys., ten lots flob East	280 00	-	
Coast ton loss forb East Coast ton	350 00 300 00	-	
Pyrazolone roll (red 38) dnis works to Pyrethrum flowers, fine gid 4.4%	5.25	5 35	
Pyrothens, ton lots, fit and in Pyrothenia, punt, 20% pyrothens, data, works:	191 3750	- 37 75	
Pyriduo, rald., Pideq., n.l., works, drus., loto	5.90	-	
Pyridoxine hydrochlorido, USP, 100- kilos or more, divid. kilos	5 70 29 00	33 00	
Pyrities, Camardian 49-50% (5-mines tempton Pyrogallic acuttose Pyrogallo)	4.50	5 00	
Pyrogallol, 100 to dras. 1 000 to lots, dive. Ri	13.70	15 25	,
lack			
U			
Olyganing bloss			ı
Ouasiachips	.57 70 75	24 25	
red, dins., frt. alld	17.75 21.75 17.75	19.00 24.25 19.00	
Outsidence sufface, USP   000 oz	2.00 4 20	2.75 4.25	
Colonia hydrochlosho, Nf., 1,000 oz dins., 2,000 oz, or more . oz Qulnia sulfato, USP XVIII, 1,000 oz.	2.45	2.50	ľ
drus., 2,000 oz. or man oz. Qukrolina, drus., t.l., frl. oquald	2.30 1.49 1.43	2.50	i
mino, sullo mais (p.	1.40		
P			· į
N			. '
R salt tech., 304 molecular wt lb. Recemethionine, USP, 50-250	2.12		
kilos	6.60 6.60 6.50		
500 or more kilos kilo feed grade, 99% min., c.l., l.l. ib. Rapessed oil, dms. b.	1.07 .58%	.5212	
dmskilo. Red carmine, No. 40/ese Carmine No. 4	22.00 ()	- 1	4
Reserpine, USP, cryst., bots., gram. Resercinol tech., bos., t.L., works	. 40	429	
Resorcinol, USP, cryst., dms. 50 kilos or more, works	3.96 9.35	, ji	. <b>.</b> .
Resorcinol monoacetate, dims., 1,000 lba. or more.	9.90 1.98		: ::
PMA done works	9.25	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	•
works,	11.50 105.00	14.00 105.10	
Rhuberb root, India whole has #	15.25 45 61	56 - 70	
powd., bgs	84.60	$\alpha, \lambda, i, i$	4 i

Rice bran oil, bleached, dms. t.iib. Richolek: acid (see Castor oil acids, spii Rochelle salt (see Potassium-sodium ta	rimiel	.9t	Sodium bicarbonste, USP, powd., n grade, bgs., a.l., t.l., works, equald
Roofing pitch (see Coaltar pitch, roofing Rose oil, nat., NF, Bulgarian, otto.	-		
Turkish, otto., bots kilo		3000.00	gran., same basis 100 lb gran., fine, same basis 100 lb
Rosemary oil, NF, Spanish, dma kilo Tunisian, dms kilo Rotenona resin, 30-45%, 100-ib. dma.	9,00 8,75	14.50 15.00	Sodium bichromate, gran., bgs. o.i., t.i works, frt. equald
worksunit-lb.	.21	.23	100-lb, bgs., o.i., same basis lb
<b>A</b>			Sodium bisulfate, bulk, p.1., works tol dms., a.1.,
			works, East 100 lbs. works, West 100 lbs.
J		l	Socium bisulite, soin., 38%, bulk, 100% basis, works, East 100 lbs.
accharin NF, gran., soluble, dms.			soln., 100%, bulk, works, West 100 lbs. photographic grade, 43% soln.,
1,000-16, jota, frt. alkd , 10. accharin NF, powd., soluble, dma., less	2.50	2.75	works 100 lbs. Sodium borate NF, gran., bos., c.i.,
than 20,000-lb. lots, frt. alid lb. offlower oil, non-break. tanks, N.Y lb.	3.75 .47	-50	worksib.
edible dms., N.Y., divd	.93 1.75	.97	Sodium borohydride, powd., dms., 1000-5000 lbs. workslb. Sodium borohydride, stabilized water
Älbanian, bgs	1.30 .80 90.00	1	soin., 12% NaBH <sub>4</sub> , 100% basis 3000 gal. tankwagon, works. Ib
Dalmatian, cns	9.50 12.50	10.00	Socium bromide, 99%, g.an., 400-lb dms., f.o.b. workslb
alicylaidehyde, tanks, f.o.b lb. alicylamide, NF, gran., powd., dma., 2,000-lb. lots, one ship ib.	3.60	-	Sodium cerbonate, decahydrate, bgs c.l., t.l., workston
ulcylic acid, tech., dma., c.i., t.i.,	1.07 1.23	1.10	Sodium carbonate, cryst. monohydrated Sodium carbonate, monohydrated
workslb. USP, cryst., dms., 1,000 lbs. or morelb.	1.33	1.63	bgs., c.l., t.l., works to Sodium carboxymethyl cellulose (see Sodium chiorate, bulk, t.c., t.t.
USP, powd., dms., 1,000 lbs. or more	1.68	-	f.o.b.worksto Sodium chlorate, crvst., 450-lb, dms
alol (see Phenylsalicylate). alt, evaporated, common, 80-lb, bgs.,			c.l., works. E
c.i., t.i., North, works80 lbs. bulk, same basis ton	4.02 60.00	61.20	Sodium chloride, USP, gran., bgsl. Sodium chlorite, tech., dma., c.l.
chemical grade, same basis 80 ibs. alt, rock, medium, coarse, same ba-	4.30 2.70	-	works
sis	18.00	25.00	t.l., works
N <sub>a</sub> SO <sub>4</sub> , basis, i.o.b. works E ton same basis W	65.00 90.00	00.8g	Sodium citrate, gran., anhyd., 200-it dms., c.l., l.l., N.Y It
andalwood oil, E. Indian kilo Indonesia kilo	145.00 102.00	-	Sodium citrate, USP, gran., dihydrate 100-lb, bgs., t.l., 1.o.b. ship
arcosine, tech., tanks, works, frt. equald(b.	.50	-	ping point
chaeffer's salt, paste, dms., 100% basis,worksib. copolamine hydrobromide, USF,	2.59	-	works
100-oz. fote bots oz. ebacic acid. CP. bos., c.l., works ib.	36.00 2.14	46.50	99% min., 200-lb. drns, mir f.o b. works
punt., bgs., c.i., works ib. eldliz mixture, dms., 5,000-lb. lots. ib.	2.13 .30\ <del>2</del>	Ξ	works. Sodium diacetate, FCC, 50-tb. bgs
elenium, powd., 99.99% Se, dms., dlwdlb.	13.00	45.00	t.i., divd. E. of Hockies ii Sodium diacetate, tech., 50-lb, drns
comi., 99.5% Se, same basis ib. enna leaves, Alexandria, whole and half, bis ib.	10.00 .75	15.00 .80	c.i., works
Tinnevelly. No. 1, bis ib. powd. bbis. bxs	.70 .90	.71 1.10	or mixed t.i., f.o.b. shippir point
esame oli, USP, oma., i.c.i ib. esame seed. Central American.	1.00	1.20	Sodium ferrocyanida, bulk, t.i., 40,000 lb. min., works
hulled, bgs	.50 191⁄2	.51 .28%	Sodium fluoborate, tech., gran., dms t.i., works, frt. equald li
l.c.l., works	.1814	.234	Sodium fluoride, white, 97%, 400-li dms , c 1., works, frt. equald., ii
ilica, amorph, dry-grd., bgs., c.l., works 93%, 200 mashton 98%, 200 mashton	31.00 32.00	32.50 33.50	USP powd., 200-lb. dms., t.
93%, 97%, 325 mesh ton 98.5%, 325 mesh ton	34.50 37.00	35.50	f.o.b, shipping point
99.5%, 325 mesh ton ilica. dry-grd., bgs., c.i., works, 99.9%, 400 mesh, mi <u>cronized ton</u>	51.50	54.50 75.50	2,500 lbs. or more frt. alld I Sodium hydride, oil dispersion, 60
99% under 15 microns, mi- cronizedton	72.00 79.50	82.50	NaH, 167-lb. dms., 10 dm works
99% under 10 microns, mi- cronizedton	104.00	105.00	Sodium hydrosulfide. (see Sodium su Sodium hydrosulfite, dms., c.l., t.
ilica, hard-quartz, 99.5% SiO <sub>2</sub> , 325 mesh, bos., c.l., works ton	37.00	_	f.ó.b. shipping point E Sodium hydroxide, USP, peliete, 10 ib. dma., c.i., t.i., works, f
140 mesh, bgs., c.l., works, ton illicon tetrachloride, tech., dms., c.l.,	34.75	-	equetd
works. ib. ianks, works. iq. iver builton, ingots, cs., Troy oz. iver cyanide, 80% Ag 500-oz. lotsoz.	.50 .36 5.17	<u> </u>	Sodium hydroxide, tech. (see Sods, o Sodium hypophosphite, EN grade, 30 fb. dms f.o.b, works
IVECHITAGE, ACS. 50.2 Frov oz. AG/	4.1475	_	110 lb. dms
100 avolr. oz. AgNO <sub>3</sub> oz. ospbark, crushed, bisib.	3.098 <del>0</del> 1.00	•-	Sodium lodide, USP, cryst., 300- to 60 lb. lots. dms. frt. equald! Sodium lauryi sulfate, 30%, tenk
powd., bis	1.35 120.00	1.85	f.o.b. works
bgs. c.l., works, f.o.b ton bulk, c.l., same basis ton light 58%, 100- ib., paper bgs., c.l.,	90.00	Ξ	Sodium tignin sulfonate, bgs., c. works 100 lb Sodium metabisulfite (see Sodium bi
same basis ton bulk, c.l., same basis ton	150.00 123.00	=	Sodium metaborate, octahydrat gran., bgs., c.l., works
Soda, caustic, ilq., 50%, sellers tanks, Gulf Coast works, f.o.b., frt.			tetrahydrate, gran, bgs, c.l. works Sodium, metaliic, 12-lb. bricks, dm
equal., 78% Na <sub>2</sub> O ton. 73%, same basis	175.00 205.00	195.00 225.00	C.l. works
fleke, 76%, 400-lb.dms, c.l, workston. solid, 76%, 700-lb.dms, c.l, workston.	500.00 520.00	670.00 670.00	fused, dms. 24,000-fb. lots or mo workstanks, works
gran., 75%,450-ib.dms,c.i, Works	520.00		Sodium inetaphosphate, tech. bg c.l., f.c.b. shipping pt. equald
Works	27.50	28.50	l 1000 grade, 0gs. c.i. 1.0.0. 111, eque
higher for solid, and \$20-\$30	ner. Prices ton higher	in West 70c. for gran, and	Sodium metaslicate, anhyd., bgs.,
beads. Soda, sal., conc., bgs., o.f. works	0.05	3.85	works
	3.35	2.00	ping point
Sodium acetate, USP, 60%, gran. 100- b. dms., c1, works b.	.57		; sodium molypoate, annyo., dms. r.d works, 100 lbs and over
dom, 300 he or more in	2.00	6.75	cryst., dms., t.i., same basis Sodium naphihionate, dms., c.i., t.i.,
b. lots or more to h	'		f.o.b, works
Sodium antimonate, bgs., c.L., divd. E. ib., Sodium ascorbate, LISB, down 100	1.49	1.50	Sodium nitrate, dom., industrial, bo
Sodium escorbate, USP, dms., 100 klos. klos. Sodium banzoate, tech., bgs., c.l., t.l., frt eild	9.30	10.50	o.i., works. bulk, c.i., works. imp., comi., 100-lb. bgs., c.i., Ati.
Sockum benzoale, USP, 50-ib, boe	/0	<b>/</b>	Dulk, p.l., seme basis
C.I., C.I., ITL 880	83 98	<b>½</b> +	imp., sgricultural, bulk, c
100-lb, dms., c.l., t.l., seme basis, ib, ton-lots, same basis	. 80	-	Sodium nitrite, USP, dms., c.i., wor frt. equald; 1001
1. 18 Te. 47 to 19 Te.	· · · ·		

Sodium bicarbonate, USP, powd., reg. grade, bgs., c.l., t.l., works, frt.	Sodium orthosilicate, tech., anhyd., bgs., c.l., works 100bs.	34.50 –	A A LITATIV	<b>第二章 张</b>
equald	Scolum arthoslicate, tech., hydrated, fiske, dms., al., works. 100 lbs.	27.45 -	CHEMIC	
fine, same basis 100 fbs. 17.20 - 100 fbs. 17.85 -	bgs., c.l., works 100 fbs., Sodum oxelate, 99%, bgs., t.l., works.fb.	26.25 .45 -		
Gren., me, same pass 100 tps. 17.00 -	Sodium pentachiorophenate, beads c.i., 30,000-lb minb.	.67 –	PRICES	
works, frt. squaid	ogsb. Sodum pentobarbital (see Pantobarbital-	.66 -   socium).	IDDITES	
frt. equald	Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., works	.321/2 .361/4	ITNIVED	
Sodium bisulfate, bulk, p.i., works ton 175.00 – dms., p.i.,	Sodium persulfate, 225-b. dms., 24,000 lbs. or more, f.e.b. plant lb.	.631/2 -		
Sodium bisulfite, arinyd. bgs., a.l., t.l., works, East 100 lbs. 28.50 -	56-lb- bgs. same basis lb. Sodium phenobarbital (see Phenobarbital	.62 -	WEEK ENDING JUNE 6, 1	986
works, West	Sodium phenosurionate, powd., dms., ib.	.76 -	Sorbitan monostearate, dms., c.l., t.l.,	
basis, works, Eest 100 lbs. 20.80 -	Sodium phosphate, anhyd., dibasic tech., bgs., c.i., t.i., works, frt.	E4 E0	30,000 lb. min., f.o.b. works	.76 -
photographic grade, 43% soin	equald	54.50 - 57.50 -	Sorbitan tristearate, c.i., t.i., 30,000 lb. min., f.o.b, works ib.	.80 –
works 100 bs. 21.90 - Sodium borate NF, gran., bgs., c.i.,	Sodium phosphate, monobasic, tech., same basis 100 lbs.	55.75 -	Sorbitol, USP, reg. 70% aqueous, dms., c.l., (.o.b. shipping	
workslb51 - powd., same basislb52 -	food grade, same basis, 100 lbs. tribasic, tech., same basis, 100 lbs.	59.76 – 52.25 52.76	point	.36 - .30 -
Sodium borohydride, powd., dms., 1000-5000 lbs. workslb. 19.86 21.90	food grade, same basis. 100 lbs. chlorinated, same basis . 100 lbs.	83.25 - 31.50 -	gren dms. c.l. t.l. works b.	.70 .74 .68 .72
Sodium borohydride, atabilized water soln., 12% NaBH <sub>4</sub> , 100% basis,	cryst., tech., same basis. 100 lbs. cryst., food grade, same ba-	30.50 -	powd., dms., c.l., t.l., worksb. Scybean meal (See Oils, Fats & Waxes m	erket report.)
3000 gel. tankwegon, works. lb. 17.45 – Sodium bromfde, 99%, G.an., 400-lb.	sis	35.60 –	Soybean oil (See Olls, Fats & Waxes mark Soybean oil acklulated, soepstock,	
dms., f.o.b. workslb. 1.04 - Sodium cerbonate, decahydrate, bgs,	works	.19 .2012	95% acid, tenks. New York ib. Soybean oil, acid, dbl., dist., dmaib.	.14 .15 .48 .59 .43 .44
c.l., t.l., workston. 254.00 - Sodium carbonate, cryst. monohydrate (see Soda, ash)	ib. dms., dry basis, divd ib. Sodium propionate, dms., 2,000 lbs. or	6.50 —	tanks	.47 .58
Sodium carbonate, monohydrated, bgs., c.l., t.i., works ton 392.00 -	more, f.o.b. frt. alid lb. Sodium pyrophosphate, scid, tech., bgs.	.54 ~	tanks lb. Speamint leaves, imp., bis. lb.	.38 .43 2.50 2.70
Sodium carboxymethyl cellulose (see CMC.) Sodium chlorate, bulk, t.c., t.t.,	c.l., works, frt. equald 100 be. tood grade, non-leavening, bgs., c.t.	5B. <b>2</b> 5 -	Speamint oil, Far West, native ib. Midwest, native	10.75 11.50 12.00 -
f.o.b.works	works. frt. equald 100 ibs. Sodium pyrophosphate, ferric, dms.,	61.25 –	Far West, Scotch	14.50 15.25 14.50 15.25
c.i., works. E	c.i., t.i., works	.3880 –	Spruce oil, dmsib. St. John's bread, edible, blsib.	9.00 ~ .29 .30
Sodjum chloride, USP, gran., bgslb29 -	anhyd., tech., bgs., c.l., t.l., works, irt. equald 100 bs.	44.75 -	Stennio chloride, anhyd., dms., worksb.	2.128 -
Sodium chlorite, tech., dms., c.l., works	bulk, hopper cars, same ba-		Stannic oxide, dms., works ib. Stannic chloride, anhyd., dms.,	12.00 -
Sodium chromate, snhyd., dms., c.l., t.l., works	sis 100 fbs. foodgrade, bgs., c.l., t.l., same ba-	42.50 -	workslb. Stannic oxide, dms., workslb.	N.Λ N.Α
Sodium chromate, tetrahydrate, bgs., c.i., t.i., works	els. 100 lbs. Sodium salicylate, USP, cryst., 200-lb.	53.00 -	Stannous chloride, arhyd., dms. wks , b. Stannous fluoborate, liq., conc., dms.,	3.509 -
Sodkum citrate, gran., anhyd., 200-lb. dms., c.l., t.l., N.Y lb. 1 95	dms., 1,000-lb lots or more, works, irt, equald	- 00.6	t.t., works, irt equaldib. Stannous oxide, dms., worksib.	3.49 3.51 N.A. – 5
Sodium citrate, USP, gran., dhydrate, 100-lb, bgs., t.l., 1.o.b, ship-	USP powd., 200-lb. dms., 1,000-lb. lots or more, same basislb.	3.05 –	Stannous sulfate, dms., workslb. Stearic acid, double pressed, bulklb	N.A. – .26 .39
ping pointb74½ - Sodium cyanate, dms. 1,000-lb. lote,	Sodium sesquicarbonate, bulk, c.i., t.l., workston.	170.00 -	single-pressed, bulk lb. triple-pressed, bulk lb	.28 .375 .32 40
works	bgs, c.l., t.l. works 100lbs. Sodjum silicate, solid, or glass, 3.22-	198.00 –	1.l., works	.3714 -
99% min., 200-lb. dms, min., 1.0 b. works	3.25 ratio, bulk, c.l., t.l., works 100 lbs.	15.70 -	Strontium nitrate, 50-15 bgs., c.l., works	51.50 -
Sodium diacelate, anhyd., dms., c.l., workslb68 -	bgs., c.l., t.l., works 100 lbs. 1.95-2.00 ratio, bulk, c.l., t.l.,	27.75 -	Styrene monomer, 99.6% min., t.c., t.t., f.o.b. works ib.	.21 -
Sodium diacetate, FCC, 50-lb. bgs., t.l., divd. E. of Rockles lb61 .67	works	20.30 - 22.15 -	Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant	.77 -
Sodium diacetate, tech., 50-lb, dms., c.l., works	soln., 37.6° solid, 3.22-3.25 ratio, bulk, c.i., t.i., frt.		cryst., bulk, same basis lb.	.77 .61 77 .61
Sodium erythorbate, powd., gran., t.l.	equald	6.30 -	Styrol acetate, dms	2.35 -
or mixed (.i., f.o.b. shipping pointb. 2.60 2.85 Prices W. of Denver 20. per pound higher.	percentage by weight of Na <sub>2</sub> O.	grit or area divided by	frt. alid	2.00 2.10
Sodium ferrooyenide, bulk, t.i., 40,000-	Sodium elicofluoride, bgs., c.l., t.l., works, frt, equald 100 lbs. Sodium stannate, dms, wks. frt. elid. E.ib.	17.95 19.75 N.A. –	work	1.7 <b>†</b> –
D. min., works   D	Sodium sulfanilate, dms, worksib.	22 -	rely.E 100 lbs. Sucrose acetate, isobutyrate, 90%	33.10 -
t.i., works, frt. equald  b. 1.77 - Sodium fluoride, white, 97%, 400-lb.	Sodium sulfate, NF XII, powd., dms., 2,000-lb. lots	.23V2 -	dme., t.i., divdlb, tanks, divdib.	1.1B - 1.10 -
dms , c1, works, fit, equald., lb6345100 bgs., c.l., same basis lb60 -	lech., detergent, rayon-grado, c.l., works. Gulfton	90.00 96.00	100%, dms., t.l., divd ib. Sucrose octa-acetate, denaturing	1.18 –
USP powd., 200-lb. dms., t.l., f.o.b. shipping pointib. 4.69 -	Sodium sullate, West, bulk, c.i., works, int. equaldton	90.00 101.00	grade, 100-lb. dms., f.o.b. workskdo	12.50 13.50
Sodium formate, bgs., c.l., workslb. 20 – Sodium gluconate, tech., 50-lb. bgs.,	bulk, cl.i, East, same basis ton Sodium sulfate, photo grade, 100-ib.	113.00 114.00	Sulfabenzamide, dms., 500 kiloskilo.	39.50 -
2,500 lbs. or more frt. ald. , lb60 - Sodium hydride, oli dispersion, 60%	bgs., c.l., works ton Sodium sulfhydrate, flake, 70-72%,	47.00 53.00	Sulfabenzamide-sodium, dms., 500 kilos	25.00 -
NaH, 167-lb. dms., 10 dms., works	dms., c.l., works, frt.	500.00 -	Suifacetamide, USP, dms., 600 kilos	20.00 23.50
Sodium hydrosulfide. (see Sodium sulfhydrato.) Sodium hydrosulfite, dms., c.l., t.l.,	liq., 44-46%, tanks, works, frt. equaldton	500.00 -	Sulfadiazine, USP, powd. dms., 500 kilos	53.00 -
f.o.b. shipping point E ib64 - Sodium hydroxide, USP, pelleta, 100-	Sodium sulfide, flake, dms., c.l., works, E., frt. equald ton	470.00 -	Sulfadiazine-sodium, USP, dms., 500 kilos	40.70 -
lb. dms., c.i., t.i., works, frt. equeld	bgs., same basis ton Sodium sulfide, fused, dms., c.l.,	410.00 -	Sulfamerazine, USP, microcrystals, dms., 500 kilos	33.50 -
Sodjum hydroxide, tech. (see Soda, causilo.) Sodium hypophosphite, EN grade, 300	works, E., frt. equald ton Sodium suifite, anhyd., tech. 95-100%	240.00 -	USP, powd., dms., 500 kiloskilo. Suffamethazing-sodium, USP, powd.	32.00 -
fb. dms f.o.b, works , lb. 1.425 1.50 110 lb. dms	bgs, f.o.b. works 100 fbs. Sodium suifocyanide CP (see Sodium th	23.76 - iocvanate).	dms., 50 kgos kdo. Sullamethazine, powder, dms., 500	13.00 -
Sodium hyposulfite (see Sodium thiosulfate). Sodium lodide, USP, cryst., 300- to 500-	Sodium tetreborate (see Borex). Sodium tetresuffice. \$q. 34%. dms.,		Surfamic acid, cryst., bgs., c.i., LL,	9.50 10.00
ib. los. done. irt. equald ib. 14.72 - Sodium lauryl sulfate, 30%, tanks.	c.i., works., irt. equald ton	540.00 -	works	38.00 41.00
f.o.b. works	Sodium thiocyanate, purif., cryst., 250- ib. dms., 5 dms. or more	y cá	works,	.36 -
Sodium lignin suifonate, bgs., c.l.,   works	f.o.b. works	3.26 -	frt. equald	2.00 -
Sodium metablsuifite (see Sodium bisulfite). Sodium metaborate, octahydrate,	Sodium thiosultate, tech., photo- grade,	.97 –	works	.67% -
gran., bgs., c.l., worksib38 - tetrahydrate, gran, bgs., c.l.,	anhyd., 100-lb. bgs., c.l., i.i., works, frt. equald 100 lbs.	45.60	drus	- 00.8
works	cryst. pentahydrate, c.l., t.l., same basis 100 lbs.	28.50 -	veasets, Gulfports long-ton	150.00 - 125.50 -
c.l. works	Sodium titanate, dms., c.l., works ib. Sodium trichloroscetate, 85%, 50-ib.	.1414 -	f.o.b. La. rety long-ton recovered, divd., Houston . long-ton ex terminal Rotterders	126.50
works	bgs., c.l., frt. ald. E b. Sodium tripolyphosphete, tech., bgs., c.l.,	.28 -	ex terminal, Rotterdern long ton f.o.b. tanks, Alberte, Canada, for US	135.00 - 102.00 -
Sodium metaphosphate, tech. bgs., c.l., f.o.b. shipping pt. irt.	t.l., works, frt, equald, 100 lbs. bulk, hopper cars, same basis, 100 lbs.	39.76 - 37.50 -	derk, ex-Tamps, Fig , long-ton dark, ex-Tamps, Fig , long-ton Sulfur courts 90 5% min sulfur com	187.50 -
equald 100 lbs. 61.50	1000 grade, bgs., c.i., t.i., same ba-	48.50 -	Sulfur, crude, 99.5% min. purity, comi. flour, 50-b. bgs., c.l., mines	18.60 -
Sodium metaslicate, anhyd., bgs., c.l.	Socium tungstate, tech. high moly., dms., 10,800 bis. or more, fri.		basis 100 bs.	19.60
works	Folin grade dma., 10,800 lbs. or	5,00 , 6.50	Suitur, refd., 99.5% min. purity, rols 50-lb. bage, c.l., mines ba-	17.50
pentahyorate, bgs., c.l., f.c.b. ahip- ping point 100 libe. 18.95 -	sodium-ammonium phosphate, purif.,	8.00 -	flour, light, 50-lb. bgs., same ba-	17.50
Sodium molybdate, anhyd., dms. f.o.b.	Sodium-iormaldehyde sulfoxylate.		Sulfur, refd., sublimed, NF, 99.86%	20.00
works, 100 be and over ib. 4.87 - cryst., dms., t.l., same basis ib. 4.12 -	dina., t.i., f.o.b. worksib. Sodium-zirconyl sulfate, dms., 1,000-		min. purity, 50-lb. bgs., al.	28.00
Sodium naphthionate, dms., o.l., t.l., f.o.b, works	ib. lots or more, works,ib. tech., dms., any quantity, worksib.	.26 - .16 -	Suifur, rubbermakers, 99,5% min. pu- rity, coml., reg., 60-lb., bgs., c.i., mines basis 100 be.	
Sodium Nitrate, USP, bgs., c.l., f.o.b., frt. equald	Solvent nephtha, petroleum, straight aromatic, p.r. 320°-350°F,		fine, 98% min, passing through 325	14.60 -
Sodium nitrate, dom., industrial, bgs., c.l., works	56°F m.a.p., lanks: New Jersey gal,	1.52 -	mesh, same basis 100 (bs Sulfur dichloride, dma., c.i., works, irt.	16.10 -
bulk c.l., works ton 250.00 -	Houston	1.41 - 1.54 -	equaidib.	.24
imp., comi., 100-lb. bgs., c.l., Atl., or Guif whse. ton 205.00 214.00 bulk, c.l., same basis. ton 182.00 —	Solvent nachtha, petroleum, straight 410°F, 60°F m.e.p., tenks:	aromatio, b.r. 360°F-	Sulfur dioxide, ilq., cont. multi-unit cers. dms., i.o.b. works ton	276.00
mp., sgricuiturai, bulk, c.i.,	New Jersey	1.30 1.35 1.30 -	Bully monochloride, dms., c.l., works.	210,00 220,00 5
Grettum offrite USP dris. C.L. Works		1.00	i Silini i di Maria d	" he remained to the second
and the second s	Turia del gra	CHRMIN	nova same bass	
19. 19. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(1911年) 1912年 - 1912年	The second second second		

Staturic sold, virgin 100% tanks, works,   East Coast
Guif Coast
Michwest 10n 80.26 — Southsest 10n 68.15 — West Coast 10n 85.00 —
Southeast
West Coast ton 85.00 -
NOTE: For prices on 60 and 66 Be., multiply by .7767 at
.9319, respectively. For price of 20% (wring eleum,
is, add \$3-\$4 to above prices and multiply by 1.045.
Sulfurio acid, ameter, 100% tanks, works,
Gulf Coast ton 48.00 52.00
New Mexicoton 20,00 25.00
Southeast ton 83.15 -
93%, lanks, divd., Northwest ton 80.00 65.00
Sunflowerseedoil, crude, f.o.b, Min-
neapolis
Superphosphate, triple, 46% or more,
a.p.a., run-of-pile, bulk, c.l.,
Fiaunit-ton 2.75 3.05
bulk, gran., c.l., Fla ton 160.00 165.00

	1
•	

	•	
2,4,5-T acid tech., 50-lb, bgs., c l., t.l.,		
works	2.50	-
dms., c.l., l.l., works, frt. equald	.93	-
2,000 lbs. to t1, same basis lb. tanks, same basis	.99 .91	Ξ
Talc, dom., grd. New York bgs., c.i., workston 99.5%, 325 mash, bgs., c.i.,	84.00	-
workston Talc, dom., 99.5%, 400 mesh, ml-	84.00	90.00
cronized, bgs., c.l., works., ton 625 mesh, micronized, bgs.,	187.00	238.00
c.l., works	200.00	-
works	90.00	-
c.i., workston imp., Canadian, grd., bga., c.i.,	136.00	-
workston Tail oil, crude, Southeast, tanks,	70.00	84.00
works, irt. equald ton Tall oil, reid ecid, same basis ib.	175.00 .31	195.00
dist , lanks, same basis ib. Tall oil acids, 2% or more rosin, tanks.	.21	.23
works, iri. equald lb. less than 2% rosin acid lb.	.23¥ .27	.26½ .28
Tallow (see Oils, F215 & Waxes market re Tallow, failty acids, tech., non-ret.	port.)	
dms.,c.l., dvd	.37 29	.40 .45
hydrogenated, tech., flake, bgs., c.l., divd	.37	.33
tanks, divd	.35 10.50	.42 11.00
Tankage, enimal feeding, 9-11%, NH <sub>3</sub> ,	35.00	-
New York, bulk unli-ton Tankage, fert. grade (see Nitrogenous p Tannic acad, NF, fluffy, bbis., 1,000- b.	5.50 rocesa (a.n	kage).
tach, powd, dmsb.	6.09	-
Ter ackd of. 15-18% t.l., dms., l.o.b	4.62 1.40	-
works	1.59 1.87	-
Testeric acid, NF, bgs.,	1.20 12.00	1.50
Terpin hydrate, NF, Imp., cryst., powd., 36 kilo drums, t.o.b. ship. pt.,		
Terpineol	1.35 1.10	1.50
remaine done.	2,40	2.05
Terpinyl propionats, dris	4.50 roethylene	).
Printer and the second	.30V	· -
Tetraethyl orthosiicate, bulk, (.o.b. works. b.	1.53	1.66
Tetraethylene glycol, tanke, frt. elid. tb. Tetraethylene glycol discrylate, 1.i.	.67	-
dins., f.o.b. works	1.50	175
Tetraethyithiuram disulfide, tech., flake, dms., Li., fri. and b.	.68	1.75 2.07
Tetrahydrofuran dma., c.k., t.L., f.o.b., works	1.02	ç.UI
terika, same basis	.98	-
Teiraissiminalogi sun dos B	.78 7.20	=
C.I., t.I. Lo.b. works	85	_
Tetrapotassium phosphate (see Potassia Tetrasodium pyrophosphate (see Sod	n phosphet Kum pyropi	e, tetrabasio hosphate,
totrabasic.) Thabium metal, divd	35.00	_
Theobrowine, bulk to b. works b. Theobrowine, USP, annyd. 50 kilo	4 00	10.00 4.50
Omy., 10,000-kdo jots k1o Thismon bydrochioda, USP 100, kie	12.00	12.95
drus , divat	27.00	31.00
The Carrier of Control of the Contro	. 27.00	31.00
PMÅ, durg ከ. ማ. Julyod, PTA, durg. ከ ማስያው ማ July, cold., durg., too lob	. 5.40 5.60	
والمراجع والمراجع والمراجع المراجع والمراجع والم		

CHEMICAL MARKETING REPORTER

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The physical study role, thins, too lots the word basis to the own to the role for 
refu ding., bl. ght.

Thionyl chloride, high-purity, 99.6%,			Turpenthe, crude sulfato tanks, f.o.b. Southeast works gal.
24,000-lb, min, t.l., dms. frt. oquald	.55	-	
lots or more, works lb dl-Threonine, dms 10 kilos wkskilo. Thyme leaves, French, bgslb.	2.75 128.00 93	- .95	
Spanish, bgs	.68 12.00	1.10	
NF, white, drns	22.00 3.75	6.15	Ultramarine blue pigments, 550-2,000
works	52.30 N.A.	56.20 -	iblots, worksib. violat, same basisib.
Titenium dioxide, anatese, bgs., 20- ton lots, irt. alid	,73	.74	Umber pigment, burnt, American, irt. equaldb. raw, American, dom., bga., i.c.i.,
als, in. alid	,72	.74	same basis
ton lots, frt. alld	,78 .80	-	Urez, 46% N, Ind.; bulk, 50-ton c.i., dvdton 20 46% N, agricultural, bulk, dvd. Mid-
Non-chalking rutile material costs 1c. p Titanium hydride powd. electronics	er pound mo	re.	west
grade, chris	26.50 .30	- .35	UVA-UISI REQUEST, DIS
Titanium sponge, 99.3% fiber drums, lease than 5,000 lbs. f.a.b. wks lb.	4.85	_	
200-gal cyfinders c.l., same basis lb. Toblas acid, 2,000 lbs. or more lb. d-a-Tocopherols, 67%, dms kilo	.60 2.45 50.08	- 1	
d-a-Tocopheryl scetate, 81% conc., dmsklio	57.49	-	Meledan met Caleina han ib
d-a-Tocopheryl acid succinate, cryst., dmsklio di-a-Tocopherol,dmsklio.	78.44 27.40	-	Valerian root, Belgian, bga ib. Indian. bga
di-a-Tocopheryl ecetate, USP 50-kilo dm. 1000 kilo min kilo.	16.00	18.60	cyls., workslb, Vanadium pentoxide, tech., gran., per lb.
50% dry powd., 50-kilo dm kilo Tolu balsam, cns	17,00 7.60 ika	8.68	of V <sub>2</sub> O <sub>8</sub> , 550-b. dms., works lb, fused or flake, per lb. V <sub>2</sub> O <sub>8</sub> , 550- lb. dms., works lb.
Atlanta, Ga., divd gal. Bayonne, N.J., divd gal.	1.36 1.32	-	ib. drns., worksib. Vendyke brown, bags, t.l., trt. equald. lb. Venlis beans, Madagascarib. 3 Java, tins
Baytown, Tex., f.o.b gal. Chicago, III. divd gal. Clairton, Pa., f.o.b gal.	1.37 1.2823 1.15	-	Java, tins
Deer Park, Tex., f.o.b gal. Ft. Wayne, Ind., divd gal.	1.37 1.34	-	Versinol Agib. Vetiveryl acetate, drnakijo 6
Guif Coast, spot, barges gal. Houston, Tex., divd gal. New Jersey Metro, divd gal.	.64 1.22 1.32	.66 -	extra
Philadeiphía, Pa., divd gal. Providance, R.I., divd gal.	1.26 1.35	-	Javakito 3 Victoria blue toners, molybdated, PMA
Toluene di-Isocyanate (mixed isomers), 80%, 2,4- and 20% 2,6- isomers, jumbo tankcars, divd	1.01	_	dmslb. tungslated, PTA, dmslb. 1 Vinyl acetale monomer, tanks, divd.lb.
p-Toluanesulfonsmide, powd., dms., t.l., worksib.	3.55	-	Vinyl chloride monomer, polymer grade, tanks, f.o.b. workslb.
m-Toluidine, tech., bulk	3.10 .72 .60	.75 .64	Vinyl ether, USP, anesthesia, 75-cc. bots., hospitalsbots. 2-Vinylpyridine t.l., dms. workekilo.
p-Toluidine, tech. cast solid,dms., cl.,worksib.	1.80	1.85	tanks, workskilo. Vinyltoluene, bulk, f.o.blb.
Liq., tanks, same basis ib. flake, same basis ib. Toluidines, mixed, o-m-p, tech., liquid,	1.70 1.95	-	Viternin A, synthetic, dry, pharm., 500,000 A units per gm., 50- kilo. jots . kilo Viternin A, iq. in oli, pharm., 1,000,000 A
c.l. f.o.b. works	1.03 .95	-	Vitamin A, feed grade, 650,000 units
Tolyltriazole, drns., 1,000-lb, lots, f.o.b. Cinclinetti, Ohlo	2.90	-	per gm
Texaphene, dma., c.l., t.l., works ib.	6.50 .38	40.00	Vitamin B <sub>12</sub> , cryst., non-sterile, USP (cyanocobalamin), viala, 50-
Tragacanth gum, No. 1, ribbons, cns. lb. flaked powder	36.00 12.50 .75	15.00	gram, lots
Tributyl citrate, t.i., drums, f.o.b., works	1.70 1.65	_ 1.77	dum phosphale, 25-kflo data kflo.  Vitamin B <sub>12</sub> , 0.1% trituration of cryst.  B <sub>12</sub> (cyanocobalamin USP) with
Tributylamine, dms., c.l., divdlb. tanks, same basislb.	1.39 1.33	-	mannitol, 25-kilo, dmskilo. Vitamin B <sub>12</sub> , cobalamin concentrate NF
Trichloroacetic acid, tech., 300-ib. dms.,c.l.,f.o.b., worksib. USP, 100-ib. dms.,frt. equaldib.	.94 .9972	-	with mannitol. 1,000 mcg, per gram, dms, per gram activity Vitamin B <sub>13</sub> , 1% Vitamin B <sub>13</sub> , USP, ab-
1,2,4-Inchlorobenzene, pure, tanks, divd	.611/2	-	sorbed on resin, 5-kilo dms., 500- gram lots, frt alld, per gram activity
1,1,1-Trichloroethane, tanks, con- sumers, divd	.40%		Vitamin B <sub>12</sub> , 1% cobatamin concentrate, NF, absorbed on reain, 5-kilo dms., frt. aild. per gram activity.
Trichioroethylene, tanks, divd ib.	42 3814	Ξ	Vitamin B <sub>12</sub> , 1% cyanocobalamin in gelatin, 2.5-kilo dms., frt.
Trichlorolsocyanuric acid, dmsib. Trichlorophanoxyacetic acid (see 2,4,5 Trichloline citrate, 65%, soin., non- ret.	i-T).	•	Bldper gram activity     Vitamin C (see Ascorbic scid).     Vitamin D (see Cholecaldiferol)
dms., 1,500-lb. lots, dvd lb. Tricresyl phosphate, tanks, f.o.b. works lb.		- 1.60	Vitamin D <sub>2</sub> (see Codiver and Fishliver oils), Vitamin E (see a-Tocopherol and Wheat ge Vitamin H (see Biotin).
Tridecyl alcohol, mixed isomers, tanks, divd		_	Violet methyl toner (see Methyl violet toner
99%, tanka, same basis	. 45	.48 .48	111
f.o.b. works	274	.27 <b>%</b> -	W
Triethyl citrate, t.l., drums, f.o.b.	. 1.20 . 1.82	-	
Triethyl phosphate, tanke, divd       Triethylene glycol, lanke, f.o.b. Gulf (b Triethylene glycol dipelargonate, tank	. 1.16 47	=	Warfarin 0.6%, drns., ton lote, frt. alid. New York or Chicago ib. Wheat germ oil, cold-pressed, gal.
f.o.b. works	29 <b>14</b> :-	-	White precipitate, USP, powd., 100-lb.
equald	). 1.43	1.45 .55	oms., i.o.b. worksib. Whiting (see Calcium carbonate). Wintergreen oil, syn. (see Methyl salkylak
Tri-isobutylane, tanka, divd it Tri-isopropanolamine, dims., c.i., in	)45 L	-	Which hazel bark, bis
alid. E	t. 554%		400 mesh, bgs., a.l. works ton 325 mesh, bgs., a.l. works ton high espect ratio, bgs., works ton
25% soin., tanks, frt. oquakt., 1009 basis	Ke b 831/2	-	Wallastonite, t.t., f.o.b., producing plant, general grade
Dasis	b56% b73	.57	325 mesh
dma., i.o.b. works	,ı, b. 1,51) b. 1,00	=	Wool gress, USP (see Landin). Wormseed oil (see Chenopodium oil, NP) Wormwood oil, cnsib.
Inphenyl phosphato, dma , t.i., fr	1. h 184	- .78	TA RE
Tripropylene glycol tanks, frt. ali Tris-thydromethylyndromuthana, son	b64 d.	~	₩
Charas Trisodom plicus hamiliese Schomig (Tryptoplemules, 25 Mars)	505. di Na strateces	asic)	
Tungette and select to the 1.75	D4≥ O-	65 00 .43	ANY WA ANY INCOME TO BE SHOULD AND ANY AND ANY AND ANY AND ANY AND ANY
6,000 ths., works	0. 12.85 6. 95	1.10	works
EPORTER Inc	H 0 1088		

entine, crude sulfate tanks, f.o.b. Southeast works gal.	.70	.00	Xylene, petroleum, incl. or nitration, Albance, Lin., Colb. Atlanta, Ga., divid.
			Bayonne, N.J., divid. Bayonne, N.J. Loh Bayonne, N.J. Loh Baytown, Fex. Lob Chicago, III., divid. Chirton, Pa. Fr. Wayne, Ind., divid. Guil Coast, Sput. horges Houston, Tox., divid.
marine blue pigments, 550-2,000 lblots, works	1.30 2.20 .13½ .13½ 2.70 200.00 200.00 210.00		Now Jersey Mello, divi Xyleno, petroleum, Ind or nitration, Phaadelphia, Pa., divid. South Bond, Ind., divid. m-Xylene, high purity, tanks, f.c. Toxes City, Tox. o-Kylene, tanks, works p-Xylene, tanks, divid. m-Xylenedlamine, dms., f.i., f.c. works 2,4-Xylidine, tech., liq., c.i., t.i. f.r. works. Xylidines, mbad, o-m-p., dms., c.i., f.o.b. works
rian root, Belgian, bgsib. Jian. bgs	.65 .45 5.00 4.10	.85 5.10 4.94	Yera yars, 25-lb, cns Yeast, pure brawer, s debittered, NF, \$ charomyces, I.I., f.o.b, works Yerba, santa kavea, bls. extra, bots. Ylang-ylang oli, extra grade

.36 .125 .195

1.70 1.50 1.00 .145

31.75

.89 9.79

20.20 20.20 20.20 20.20

29.70 29.70 29.70

2.14

67

38

.61

.2850 1.48

4.70

177.00

3.63

3.75

1.04

١	Valerian root, Belgian, bga ib.	-65	.65
-	Indian. bgs	.45	-
- (	Vanadium oxytrichloride, 3,000 lb.		
1	Cyls., workBlb.	5.00	5.10
- 1	Vanadium pentoxide, tech., gran., per lb.		
	of V <sub>2</sub> O <sub>6</sub> , 550-tb. dms., works lb.	4.10	4.94
- 1	fused or flake, per lb. V <sub>2</sub> O <sub>5</sub> , 550-		0.05
ŀ	ib. dma., worksib.	3,35	3.65
1	Vendyke brown, bags., t.l., frt. equald. lb.	.27%	-
ı	Vanilla beans, Madagascar lb.	37.00	20.00
1	Java, tins	27.00 6.25	3D.00
1	Vanilin, USP, dms., f.o.b works lb.	4.75	5.00
- 1	imp., dms	.64	0.00
ı	Veliveryi acetata, dma kilo	60.50	_
	extra	63.00	Ξ
1	Vetiver oil, Bourbon, dmsfb.	16.00	17.00
1	Haltian	23.00	24.50
1	Javakilo	31.00	27.50
	Victoria blue toners, molybdated, PMA	01.00	_
1	dmslb.	6.20	6.30
1	tungstated, PTA, drnslb.	10.40	-
	Vinyl acetale monomer, tanks, divd.lb.	.39	_
]	Vinyl chloride monomer, polymer		
ı	grade, tanks, f.o.b. workslb.	.28	_
ı	Vinyt ether, USP, anesthesia, 75-cc.		
	bots., hospitalsbots.	1.56	_
	2-Vinylpyrkline t.l., dms. works kilo.	7.81	_
1	tenks, works	7.61	_
	Vinyttoluene, bulk, f.o.b	.87	.731/2
	Vitamin A, synthetic, dry, pharm., 500,000		
1	A unita per gm., 50- kilo. jota . kilo	33.00	-
	Vitemin A, liq. in oil, pharm., 1,000,000 A		
	units per gram, 10 kilo lota kilo	41.00	-
	Vitamin A, feed grade, 650,000 units		
3	per gm	18.70	23.85
1	Vitamin B. (see Thiamine hydrochloride).		
	Vitamin B <sub>12</sub> (see Riboflavin a	nd Yeast).	
	Vitamin B <sub>12</sub> , cryst., non-sterile, USP		
	(cyanocobalamin), viala, 50-	0.00	0.75
	gram, lots	8.00	9.75
	Vitamin B <sub>19-</sub> 1% trituration of cryst. B <sub>18</sub> (cyanocobalamin USP) with dical-		
	dum phosphate, 25-kilo dans. kilo.	10.75	12.75
	Vitamin B <sub>12</sub> , 0.1% trituration of cryst.	10.75	12.70
	B <sub>12</sub> (cyanocobalamin USP) with		
	mannitol, 25-kilo, dmskilo.	15.80	_
	Vitamin B <sub>12</sub> , cobalamin concentrate NF	10.00	_
	with mannitol. 1,000 mcg, per		
	gram, dms, per gram activity	19.45	_
	Vitamin By, 1% Vitamin By, USP, ab-		
	sorbed on resin, 6-kilo dms., 500-		
	annual late the allet annual later		

June 9, 1986

(Cyanocoomanin Cor) with cica-		40.00	Concord, NC 100 lbs.	22 50
	10.75	12.75	Old Bridge, NJ 100 lbs.	33.20
in B <sub>12</sub> , 0.1% trituration of cryst.			Zinc chromate, bgs., divd lb.	1.12
Builcyanocobalamin USP) with	10.00		Zinc cyanide, dms., c l ib. Zinc dust pigment typo 1 & 2, dms., c.f.,	1.65
	15.80	-	f.o.b. plant	.59
In B <sub>12</sub> , cobalamin concentrate NF			Zinc ethylenediamine tetracetic nckl.	.58
with mannitol. 1,000 mcg, per	10.45		8.4% Zn., ammonin sati soin.,	
gram, dms, per gram activity in B <sub>ij</sub> , 1% Vitamin B <sub>ij</sub> , USP, ab-	19.45	-	t.c., t. f.o.b. works	.66
eorbadon raein 6 kilo dose 500		,	9% Zn., anymonia salt soln., t.c., t. t.,	.00
scribed on resin, 6-kilo dms., 500- gram lots, frt alid, per gram activity	1E AE		f.o.b, works	.48
in B <sub>12</sub> , 1% cobalanta concentrate.	15.65	-	Zinc fluoborate, liq. corp., dms., I.I.,	
NF, absorbed on resin, 5-kilo			works, frt. equald lb.	.27
dms., frt. aild. per gram activity.	15 40		Zinc metal, high grade, divd lb.	.33
NA Bis. 1% cyanocobalamin in	15,40	-	Zinc naphthonate, tq. 8% Zn, dma.,	
gelatin, 2.5-kilo dms., frt.			divd	.95
	15.40	_	divd	.34
nin C (see Ascorbic scid).	10.40	_	Zinc oxide photo conductive, bgs., c.i.,	
nin D (see Cholecalciferol)			I ITT. AKO	.47
nin D <sub>e</sub> (see Codiiver and Fishiiver oils).			Zinc oxide, USP 50-lb. bxs., c.l., frt.	
nin E (see a-Tocopherol and Wheat ge	All and		8#d.,	.46
nin H (see Biotin).	entermy.		4 400 00000 pigment, Americen process.	
t methyl toner (see Methyl violet toner	١.		lead-free bgs., c.i., frt. alid lb.	.40
this the fact is a second the second second	<u> </u>		Zinc oxide pigment, French process	
			regular, bgs., c.l., frt. and ib.	.41
			Zinc phenoisulfonate, purif., gran., 250-lb, dma, t.l., frt. ald lb. Zinc pyridinethlone, 48% dispersion,	4 00
			Zion probling thing 48% discouler	1.82
			doe to have	D 50
			dma., f.o.b. works	8.50
			Industrial grade Zino resinate precip. 7.2-7.6% Zn,	14.50
			1 rapinged broods (15,170 to 511)	
			1 (9708.97) all d	
·		عنصسي	2 CMS., 17. alid b.	.48
farin 0.5%, dime., ton lote, frt. alid.			Zino silipofiuoride, dms., c.i., t.i.,	
farin 0.5%, dms., ton lote, frt. alid. New York or Chicago lb.	.75	<del></del>	Zino silipofiuoride, dms., c.i., t.i.,	.17
New York or Chicago lb.	.75 18.50	17.50	Zino silippiiuoride, dms., o.l., t.l., works	
New York or Chicago lb, ant germ oil, cold-pressed, gal. cold-processed	.75 18.50 14.00	17.50	Zino silippiiuoride, dms., o.l., t.l., works	.17
New York or Chicago lb, ant germ oil, cold-pressed, gal. cold-processed	18.50	17.50	Zino silipofiuoride, dms., o.l., t.l., works. b. Zino silipofiuoride, dms., o.l., t.l., works. b. Zino silitate, gran., monohydrate, indust, grade 36% Zn., bgs., o.l., works. 100 lise.	.17
New York or Chicago	18.50	-	Crise, IT. alid.  Zina silipofiuoride, dms., a.l., t.l., works.  Zina sierats, USP, buk, t.l. b.  Zina sierats, gran., monohydrats, indust, grade 36% Zn., bgs., a.l., works.  agricultural grade powd., buk.	.17 .92 26.50
New York or Chicago ib, wat germ oil, cold-pressed gal. cold-processed gal. te precipitate, USP, powd., 100-lb, dms, 1.o.b. works ib, ting feed Calcium carbonate).	18.50 14.00 7.892	17.50 11.24	Zino allipofluoride, dms., c.l., t.l., works b. Zino siderats, USP, buik, t.l b. Zino siderats, USP, buik, t.l b. Zino siderats, gran, monohydrate, indust, grade 38% Zn., bgs., c.l., works	.17 .92
New York or Chicago ib.  New York or Chicago ib.  cold-processed	18.50 14.00 7.892	-	Zino allipofluoride, dms., o.l., t.l., works. b. Zino stearata, USP, bulk, t.l. b. Zino sulfate, gran., monohydrate, indust, grade 36% Zn., bgs., o.l., works. 100 lbs. agricultural grade powd., bulk, same basis. 100 lbs. Zino wellow (see Zino chromate).	.17 .92 26.50
New York or Chicago ib.  New York or Chicago ib.  cold-processed	18.50 14.00 7.892	-	Cris., IT. slid. Zina silipotiuoride, dms., a.l., t.l., works. Zina siesarats, USP, bust, t.l. b. Zina yellow (see Zina chromete). Zina-simmonium chloride, bas. c.l	.17 .92 26.50 22.50
New York or Chicago	18.50 14,00 7.892	-	Crise, IT. alid.  Zino alilipofiuoride, dms., o.l., t.l., works.  Zino suffate, gran., monohydrate, indust. grade 36% Zn., bps., o.l., works.  Go ibs., agricultural grade powd., bulk, same basis.  Zino yellow (see Zino chromate).  Zino-ammonium chloride, bgs., c.l., works.  b.	26.50 22.50
New York or Chicago ib, sepan ob, cold-pressed, gal. cold-prosesed gal. to precipitate, USP, powd., 100-lb, dms., 1.o.b. works ib, img (see Calcium carbonate). tegreen ol, syn. (see Methyl selloylate in hazel bark, bis ib, seves, bis ib, 400 mesh, bds., ol, works ton.	18.50 14.00 7.892 1.25 1.60 134.00	-	Crise, Irt. elid.  Zino allipofluoride, dms., o.l., t.l., works.  Zino sterats, USP, buik, t.l. b.  Zino yellow (see Zino chromate).  Zino yellow (see Zino chromate).  Zino ammorium chloride, bgs., c.l., works.  Zino undecytenate, dms., works. b.	.17 .92 26.50 22.50
New York or Chicago ib. and processed	18.50 14.00 7.892 3). 1.25 1.60	-	Crise, IT. slid. Zina silipotiuoride, dms., a.l., t.l., works. Zina silipotiuoride, dms., a.l., t.l., b. Zina silerats, USP, buik, t.l. b. Zina yellow (see Zina chromete). Zina yellow (see Zina chromete). Zina yellow (see Zina chromete). Zina undecylenate, dms., works. b. Zina undecylenate, dms., works. b. Zina chromatiehyde sulfoxylete, best	.17 .92 26.50 22.50 4.67
New York or Chicago ib, wat germ oil, cold-pressed, gal. cold-processed gal. to precipitate, USP, powd., 100-lb, dms, i.o.b. works ib, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salicylate ich hazel berk, bis ib, 400 mash, bgs., o.l. works ton 325 mesh, bgs., o.l. works ton 1825 mesh, bgs., o.l. works ton 1876 mesh, bgs., ol. works ton 1876 mesh, ol. works	18.50 14.00 7.892 1.25 1.60 134.00	-	Crise, Irt. elid.  Zino alliporiuoride, dms., o.l., t.l., works.  Zino sulfate, gran., monchydrate, indust. grade 36% Zn., bgs., o.l., works.  Zino sulfate, grade 36% Zn., bgs., o.l., works.  (00 lbs., agricultural grade powd., bulk, same basis.  Zino yellow (see Zino chromate).  Zino-ammonium chloride, bgs., c.l., works.  Zino-ammonium chloride, bgs., c.l., works.  Zino-formaldehyde sulfoxylate, basic 200-lb. dms., frt. alid.  (10. lbs.)	.17 .92 28.50 22.50 4.67
New York or Chicago. b, mat garm o8, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb, dms, 1.0. works. b, dms, 1.0. b, do mash, bgs, o.l. works. ton 325 mesh, bgs, o.l. works. ton high espect ratio, bgs, works ton lastonite, t.l., 1.0. producing	18.50 14.00 7.892 1.25 1.60 134.00 117.00 164.00	-	cms, rr. alid. Zina aliboriuoride, dms., c.l., t.l., works. USP, buk, t.l. b. Zinc stearats, USP, buk, t.l. b. Zinc yaliow (sea Zinc chromate).	.17 .92 26.50 22.50 4.67
New York or Chicago. b, bat garn oil, cold-pressed, gal. cold-pressed, gal. to precipitate, USP, powd., 100-lb, drig, f.o.b. works. b. ting (see Calcium carbonate). tergreen oil, syn. (see Methyl selloylate hexel bark, bis. b. 400 mesh, bgs. o.l. works. ton high aspect ratio, bgs., works ton lilastonite, t.f., f.o.b., producing polent, ceneral gard.	18.50 14.00 7.892 3) 1.25 1.50 134.00 117.00	-	Crise, Irt. slid. Zino siliporituoride, dms., c.l., t.l., works. Zino silearste, USP, bust, t.l. b. Zino sulfate, gran., monohydrate, indust, grade 36% Zn., bgs., c.l., works	.17 .92 26.50 22.50 .44 4.67 1.00 165.00
New York or Chicago. b, bat garn oß, cold-pressed, gal. cold-pressed, gal. to precipitate, USP, powd., 100-lb, dma, f.o.b. works. b. ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salicylate hazel berk, bis. b. aves, bis. b. 400 mash, bgs., o.l. works. ton 325 mesh, bgs., o.l. works. ton high aspect ratio, bgs., works ton listeniste, t.t., f.o.b., producing plant, general grade. ton 25 mesh. ton	18.50 14.00 7.892 0). 1.25 1.60 (34.00 117.00 184.00 200.00	-	Crise, frt. elid.  Zino allipofluoride, dms., o.l., t.l., works.  Zino sterats, USP, busk, t.l. b. Zino stefate, gran., monchydrate, indust. grade 36% Zn., bgs., o.l., works.  Glo ibs. agricultural grade powd., bulk, same basis.  100 ibs. Zino yellow (see Zino chromate). Zino-ammoralum chloride, bgs., c.l., works.  Zino-formaldehyde sulfoxylate, basic 200-b. dms., frt. alid.  Zircon gran. bgs., bulk c.l., works. Lon. Zircon milied bgs., 200 and 325 mesh, old works.	.17 .92 28.50 22.50 4.67
New York or Chicago. bb, set garn o8, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb, dms, 1.o.b, works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. bb, seves, bc, seves, bc, cl, works. ton 325 meah, bgs., ol, works. ton high aspect ratio, bgs., works ton liestonite, t.t., f.o.b., producing plant, general grade. ton 25 meah. ton 95 meah.	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 180.00	11.24	cms, rr. alid. Zina eliboriuoride, dms., c.l., t.l., works. Jb, buk, t.l. b. Zinc stearats, USP, buk, t.l. bo, check to grade 36% Zn., bgs., c.l., works. 100 lbs. Zinc yellow (see Zinc chromate). Zi	.17 .92 28.50 22.50 4.67 1.02 165.00 225.00
New York or Chicago. ib. at garn ol, cold-pressed, gal. cold-processed gal. te precipitate, USP, powd., 100-lb. dms, f.o.b. works. ib. ting (see Calcium carbonate). tergreen ol, syn. (see Methyl salloylate th hazel bark, bis. ib. 400 mesh, bgs., ol, works. ton 325 mesh, bgs., ol, works. ton high aspect ratio, bps., works ton liastonite, t.t., f.o.b., producing plant, general grade. ton 25 mesh. ton 300 mesh. ton 300 mesh. ton 300 mesh. ton	18.50 14.00 7.892 0). 1.25 1.60 (34.00 117.00 184.00 200.00	11.24	Crise, Irt. slid. Zino siliporiuoride, dms., c.l., t.l., works. Zino siearats, USP, buik, t.l. b. Zino siearats, USP, buik, t.l. b. Zino salfate, gran, monohydrate, indust, grade 36% Zn., bgs., c.l., works. 100 lbs. agricultural grade powd. buik, same basis. 100 lbs. Zino yellow (see Zino chromate). Zino yellow (see Zino chromate). Zino-ammonium chloride, bgs., c.l., works. b. Zino undecylenate, dms., works. b. Zino undecylenate, dms., works. b. Zino undecylenate, dms., works. b. Zinoon gran. bgs., buik c.l., works. ton Ziroon gran. bgs., buik c.l., works. Linoon gran. bgs., buik c.l., works. Linoon gran. bgs., buik c.l., works. Linoon gran. bgs., c.l.,	.17 .92 26.50 22.50 4.67 1.09 165.00 225.00
New York or Chicago. b, set germ oil, cold-pressed, gal. cold-pressed, gal. cold-processed gal. to precipitate, USP, powd., 100-lb, dma, f.o.b. works. b, targreen oil, syn. (see Methyl salicylate hazel bark, bis. b, swes, bis. b, 400 mash, bgs., o.l, works. ton high aspect ratio, bgs., works ton list oscillationist. t.l., f.o.b., producing plant, general grade. ton 25 mesh. ton 30 mesh. ton 50 mesh. ton 100 gresse, USP (see Lanolin).	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 180.00	11.24	Crise, Irt. elid.  Zino alliporiuoride, dms., o.l., t.l., works.  Zino sulfate, gran, monohydrate, indust, grade 36% Zn., bps., o.l., works.  Zino sulfate, gran, monohydrate, indust, grade 36% Zn., bps., o.l., works.  Zino yellow (see Zino chromate).  Zino-ammonium chloride, bgs., c.l., works.  Zino-ammonium chloride, bgs., c.l., works.  Zino-ammonium chloride, bgs., c.l., works.  Zino-formaldehyde sulfoxylate, bsaic 200-b. dms., frt. alid.  Zinoon gran. bgs., bulk o.l., works. ton Zircon miled bgs., 200 and 325 mesh, o.l., works.  c.l., works.  c.l., 30,000 bs. min., works.  22% ZrO., sams basis.  b.	.17 .92 28.50 22.50 4.67 1.02 165.00 225.00
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	cms, rr. alid. Zina eliboriuoride, dms., c.l., t.l., works. Jb. Jina siditoriuoride, dms., c.l., t.l., works. Jb. Jina siditae, gran., monohydrate, in- duet, grade 36% Zn., bgs., c.l., works. 100 lbs. agriculturai grade powd., bulk, same basis. 100 lbs. Zino yellow (see Zino chromate). Zino yellow (see Zino chromate). Zino yellow (see Zino chromate). Dino yello	.17 .92 28.50 22.50 4.67 1.00 165.00 225.00
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 180.00	11.24	Crise, IT. slid.  Zina silipotiuoride, dms., a.l., t.l., works.  Zina silipotiuoride, dms., a.l., t.l., b.  Zina silipotiuoride, bisk, t.l. b.  Zina silipotiuoride, pr., p.	.17 .92 26.50 22.50 4.67 1.09 165.00 225.00
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Criss, IT. slid.  Zina silipotiuoride, dms., c.l., t.l., works.  Zina siearats, USP, buit, t.l. b.  Zina siearats, USP, buit, t.l. b.  Zina siditate, gran., monohydrate, indust, grade 36% Zn., bgs., c.l., works.  agricultural grade powd., buit, same basis.  100 lbs.  Zina yellow (sea Zina chromate).  Zina yellow (sea Zina chromate).  Zina undecylenate, dms., works.  Zina undecylenate, dms., undecylenate, dms., dms., dms.  Zina undecylenate, dms., undecylenate, dms., dms	.17 .92 26.50 22.50 4.67 1.09 165.00 225.00
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Criss, IT. slid.  Zina silipotiuoride, dms., c.l., t.l., works.  Zina siearats, USP, buit, t.l. b.  Zina siearats, USP, buit, t.l. b.  Zina siditate, gran., monohydrate, indust, grade 36% Zn., bgs., c.l., works.  agricultural grade powd., buit, same basis.  100 lbs.  Zina yellow (sea Zina chromate).  Zina yellow (sea Zina chromate).  Zina undecylenate, dms., works.  Zina undecylenate, dms., undecylenate, dms., dms., dms.  Zina undecylenate, dms., undecylenate, dms., dms	.17 .92 26.50 22.50 4.67 1.02 1.65.00 225.00 .97 .77
New York or Chicago. b, set germ oil, cold-pressed, gal. cold-pressed, gal. cold-processed gal. to precipitate, USP, powd., 100-lb, dma, f.o.b. works. b, targreen oil, syn. (see Methyl salicylate hazel bark, bis. b, swes, bis. b, 400 mash, bgs., o.l, works. ton high aspect ratio, bgs., works ton list oscillationist. t.l., f.o.b., producing plant, general grade. ton 25 mesh. ton 30 mesh. ton 50 mesh. ton 100 gresse, USP (see Lanolin).	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Crise, IT. slid.  Zino alliporituoride, dms., c.l., t.l., works.  Zino stearate, USP, bust, t.l. b.  Zino yellow (see Zino chromate).  Zino yellow (see Zino chromate).  Zino yellow (see Zino chromate).  Zino undecytenate, drns., works. b.  Zino undecytenate, drns., works. b.  Zino undecytenate, drns., works. b.  Zino mailed bgs., 200 and 325 mesh, c.l., works. ton  Ziroonium acetate soln., 25% ZrO, dres., c.l., 30,000 bs. min., works. b.  Ziroonium dydride, powd., elsebronic grade, dms., works. b.	.17 .92 26.50 22.50 4.67 1.09 165.00 225.00
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Criss, IT. slid.  Zina silipotiuoride, dms., c.l., t.l., works.  Zina siearats, USP, buik, t.l. b.  Zina siearats, USP, buik, t.l. bgs., c.l., works.  agricultural grade powd. buik, same basis.  100 lbs.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chromate).  Zina undecylenats, drns., works.  B.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  D.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chrom	.17 .92 26.50 22.50 4.67 1.00 165.00 225.00 .97 .77 .3 4.22 7.21
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Criss, IT. slid.  Zina silipotiuoride, dms., c.l., t.l., works.  Zina siearats, USP, buik, t.l. b.  Zina siearats, USP, buik, t.l. bgs., c.l., works.  agricultural grade powd. buik, same basis.  100 lbs.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chromate).  Zina undecylenats, drns., works.  B.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  D.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chrom	.17 .92 26.50 22.50 4.67 1.02 1.65.00 225.00 .97 .77
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Crise, IT. slid.  Zino siliporituoride, dms., c.l., t.l., works.  Zino silearst, USP, bust, t.l b.  Zino silearst, USP, bust, t.l. bes, c.l., works.  agricultural grade powd. bust, same basis. 100 ibs.  Zino yellow (see Zino chromate).  Zino undecylenate, drns., works b.  Zino undecylenate, drns., works b.  Zino mailed bgs., 200 and 325 mesh, c.l., works ton  Ziroonium acetate soln., 25% ZrQ, dres., c.l., 30,000 bs. min., works b.  Ziroonium vorde, powd., electronic grade, dms., works b.  Ziroonium oxide, powd., coml., drns., 2,000 bs. min., bb.  sisctronic, same besis b.  insulating, stellitzed, 325°F same  basis.  lineutating, unstabilized, 325°F same	.17 .92 26.50 22.50 4.67 1.02 165.00 225.00 .97 .77 .3 4.22 7.22
New York or Chicago. b, set garn oil, cold-pressed, gal. cold-pressed, gal. te precipitate, USP, powd., 100-lb. dma, 1.o.b. works. b, ting (see Calcium carbonate). tergreen oil, syn. (see Methyl salloylate in hazel bark, bls. b, seves, seves	18.50 14.00 7.892 a). 1.25 1.60 194.00 117.00 164.00 200.00 140.00 150.00 500.00	11.24	Criss, IT. slid.  Zina silipotiuoride, dms., c.l., t.l., works.  Zina siearats, USP, buik, t.l. b.  Zina siearats, USP, buik, t.l. bgs., c.l., works.  agricultural grade powd. buik, same basis.  100 lbs.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chromate).  Zina undecylenats, drns., works.  B.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  Zina undecylenats, drns., works.  D.  Zina yellow (see Zina chromate).  Zina yellow (see Zina chrom	.17 .92 26.50 22.50 4.67 1.00 165.00 225.00 .97 .77 .3 4.22 7.21

#### CENTRIFUGES

P5400 Sharples, 316 S/S RECONDITIONED P3400 Sharples, 316 S/S, (5)
P3400 Sharples, 316 S/S, carbide tiles P3000 (PM 20,000), 316 S/S UNUSED P660 Sharples, 316 S/S (2)
40"x 60" Bird, 304 S/S, reconditioned by mfr. 6" Bird OBS, 316 S/S
NX314 DeLaval, 316 S/S
48" Sharples "Tornadomatic" 316 S/S (2) NX314 DeLaval, 316 S/S
46" Sharples "Tornadomatic" 316 S/S (2)
48" Tolhurst, "Batch Master", S/S (2)
48" Sharples "Sludge-Pak" Model SP-6500, 316 S/S
48" Western States, "Sludge-A-Tron", 316 S/S, (3)
32" Baker-Perkins, pusher design, 316 S/S
26" AT&M suspended centrifuge, 304 S/S 5 H.P.
12" Krauss-Maffel, pusher designed, 316 S/S
8" Baker Perkins Pusher Design, 316 S/S
SB600 Alfa-Laval pusher design, 316 S/S

#### SZEGVARI ATTRITORS

60 gal. Szegvari, jacketed, stainless steel 15 gal. Szegvari, jacketed, stainless steel

# PRESSURE FILTERS

480 sq. ft. Durco-Enzinger, Model 60DHC489, 316SS 370 sq. ft. Niagara Model 370-348, 304SS 322-8 sq. ft. Funda Model R-30, 316 S/S, jktd., 40 HP 314 sq. ft. Niagara, Model 42-310-22, 304 S/S 259 sq. ft. Pronto, Model 3259, S/S (2) 180 sq. ft. Sparkler, Model 33S30, S/S (2) 107 sq. ft. Sparkler, Model 33S19, Nickle

#### **VACUUM FILTERS**

8'x16' Ametek, 316 ELC S/S LIKE NEW CONDITION 6'x6' Ametek, polypropylene 5'x7' Paxman, 316 S/S, precoat 18"x12" Eimco, 316 S/S, precoat

### **REACTORS-TANKS**

S/S, G/L Reactors, up to 5000 gal. capacity, Tanks up to 15,000 gal. capacity (100's in stock) (S/S, G/L, C/S, FRP)

#### **HORIZONTAL BELT FILTERS**

8'x18' Elmco, rubber belt, vecuum (2)
4'x12' Elmco, rubber belt, vecuum (2)
2'x10' Straightline, rubber belt, complete
2'x7' Straightline, rubber belt, complete
1'x3' Elmco, rubber belt, complete

#### BELT FLAKERS

60"x60" Sandvick, S/S belt, with cooling delumper, all accessories. NEW CONDITION 30"x20' Sandvik, S/S belt flaker, complete

#### **FITZ CHILSONATOR**

Size 16 x 30 Fitzpatrick Chilsonator System, all S/S construction, with size 30 granulator, with drives

BALL/PEBBLE MILLS
6'x8' Patterson Jacketed Steel Ball Mill, 50 H.P.
5'x6' Patterson Jacketed Steel Ball Mill, 30 H.P.
3'x4' Patterson Pebble Mill, aricite lined

#### SAND MILLS

12-30 Morehouse-Cowles Sand Mill, 50 H.P. 10-25 Morehouse-Cowles Sand Mills, 25 H.P. (2) 16-P Chicago Boller "Red Head" 30 H.P. 3-P Chicago Boller "Red Head," 7½ H.P. Lab Chicago Boiler "Red Head," 1 H.P.

#### LAB 3 ROLL MILLS

5"x12" J.H. Day, high speed, complete 4½"x10" Rose, high speed, complete

#### ALL NICKLE CONSTRUCTION

00 gal. Nooter Reactors, 30/50 PSI (2) 500 sq. ft. U.S. Autojet Pressure Filter 107 sq. ft. Sparkler Pressure Filter, Model 33-S-19 5'x3' Ametek Rotary Vacuum Filter

#### **JUST PURCHASED**

7500 gal. Terre Haute Fermenters, 304 S/S, 50 psl (5) 4000 gal. horizontal batch still, S/S 2500 gal. Hicks tanks, 316L S/S, 50 psl or F/V 2000 gal. Nooter reactors, 316L S/S, 60/90 psl (8) 2000 gal. Pfaudier reactor, 316L S/S, 60/90 psl 2000 gal. Mueller reactor, 316L S/S, 60/90 psl 2000 gal. horizontal batch still, S/S (2) 1250 gal. S/S Mix Tanks, 10 HP Vari- Drive (2) Miac. G/L tanks and kettles, to 3000 gal. (8) ST 100 Aeromatic Fluid Bed Dryer, all S/S

#### MAJOR NEW PURCHASE

(84) NASH CL (WATER SEAL) VACUUM PUMPS
63-Model CL703 Pumps, 700 GPM, to 3' Hg. Absolute 50
H.P. Direct Coupled Drive, mounted on base;
18-Model CL702 Pumps, 700 CFM; to 6' Hg. Absolute
2-Model CL2002 Rumps; 2000 CFM; to 6' Hg. Absolute
Alaptavallation (III) Model HGA (II) Model Hux (II) Model.
14-7/Hompletewithd (IV) ्रम् त्यां क्रांति स्थातात्त्रं स्थात्या स्थात्त्रं स्थात्त्रा स्थात्त्रा स्थात्त्रा स्थात्त्रा स्थात्त्रा स्थ भागान्या स्थापना स्थापन

#### RESIN MFG. EQUIPMENT-**OHIO LOCATION**

5000 gal. Struthers-Wells Reactor System, 347 S/S, 50 PSI or full vacuum internal, 75 PSI lacketed, 700°F, turbine agitator, with condensor, receiver, piping,

15,000 gal. Stainless Steel Tanks, vertical, with Internal colls, top entering 30 H.P. turbine agitators (3) 15,000 gal. Stainless Steel Tank, vertical, 50 PSI 15,000 gal. Stainless Steel Tank, vertical, 50 PSi
15,000 gal. Stainless Steel Tank, horizontal, 49 PSi
200 gal. Baker-Perkins Mixers, size 17GiM, type 304
stainless steel construction, fully jacketed, duplex
dispersion blades, screw tilt, 40 H.P. (5)
35 gal. Patterson "Kneadermaster" Mixers, 304 stainless steel, sigma blades, jacketed, 40 H.P. (5)
100 H.P. Sprout-Waldron Hammermills, Model CG-26 (5)
201 dla Bait Thormson was 304 S/S jacketed trough

28" dia. Reitz Thermascrews, 304 S/S, jacketed trough 28' long, 15 H.P. varidrive (2) 10"x84" Patterson Screens, 1 deck, S/S (9)

IMMEDIATE AVAILABILITY-CALL FOR DETAIL!

#### **NEW LIQUIDATION**

**PVC Suspension Plant** Ohio Location 12-5,000 gal. Pfaudler Reactors, C/S construction, rated 220 PSI internal, 80 PSI jacket, 50/25 H.P. Philadelpi

Complete Nara Vertical Fluid Bed Dryer System, all S/S, 6'7" x 22'1", 2 stage, rated up to 10,000 #/hr., with heaters, blowers, cyclones Complete Proctor Vertical Flash Dryer System, all 3/S, 3'1'

Complete Proctor Vertical Flash Dryer System, all 3/S, 3'1" x 117'2", with heater, blower cyclones 20,000 gal. Stainless Steel Mix Tanks, 13'6"x19', 20 H.P. (2) 16,000 gal. Stainless Steel Mix Tank, 12'x18'4", 10 H.P. (1) 15,000 gal. Stainless Steel Mix Tank, 9'6"x27'6" 40 H.P. (1) 8,500 gal. Stainless Steel Tank, 9'6"x15'2" (1) 8,000 gal. Glascote Vacuum Receiver, Glass-Lined (1) 7,000 gal. Stainless Steel Mix Tanks, 13'x6"x8', 7'/2 H.P. (2) 6,500 gal. Glascote Vacuum Receiver, Glass-Lined (1) 2,250 gal. Stainless Steel Kettles, 8'8"x8', jacketed, 10 H.P. (1)

2,250 gal. Stainless Steel Kettles, 6'8"x 8', jacketed, 3 H.P.

2,250 gal. Stainless Steel Kettles, 5'8''x 8', jacketed, 3 M.P.
(2)
2,000 gal. Stainless Steel Mix Tanks, 6'x6'4", 2 H.P. (3)
1,000 gal. Stainless Steel Kettles, 5'4"x6', jacketed, 2 H.P. (2)
1,000 gal. Stainless Steel Jacketed Tanks, 5'4"x6' (2)
4-A.O. Smith Silos, Glass-Lined, 14'x40', bolted
1-Butler, Epoxy-Lined, 9'x32' weided
220 CFM Sullaire Compressor, 125 PSI, rotary screw design
117 sq. ft. Milkro Pulsair Collector, Model 25S-6-30, S/S
Derrick Screen, single deck, 3'x5'
Misc. tanks, feeders, blowers, cyclones, pumps

#### **NEW LIQUIDATION**

Chemical Plant **Ohio Location** 4'x6' Buflovak Drum Flaker, chrome, compl 5'x8' Ametek Rotary Vacuum Filter, S/S 4'x4' Bird-Young Rotary Vacuum Filter, S/S 3'x6' Dorr-Oliver Rotary Vacuum Filter, S/S (2) 33-12-S Norther Holary Vacuum Filter, 5,5 (2)
33-12-S Nigara Pressure Filter, S&S, jacketed (2)
5000 gal. S/S Mixing Tanks, 10'x8', (3)
3000 gal. S/S Mixing Tanks, 8'x8', (7)
2000 gal. Resin Kettle, S/S, complete
1000 gal. Kettle, S/S, complete
750 gal. Kettles, S/S, complete (4) Carter Vac Bag Fillers, type BC-1-VB (2)
Black Products Bagger System, complete
H-7 Nash Vacuum Pumps (4)
48" Sweco Screen, 1 deck, S/S 8 MA Mikro Atomizer, S/S, complete Misc. tanks, columns, condensors, pumps

#### SPECIAL OFFERING

33' dia. Niro Spray Dryers, 316 S/S, UNUSED (2) complete spray drying facility, never installed, including (2) 33' dia. chamber, Model F-350 centrifugal atomizers. All equipment new 1978, as shipped from Niro awaiting installation.

10' dia Niro Fluid Bed Dryer, 304 S/S, UNUSED, complete system with drying chamber, heating-cooling systems, feed tanks, cyclone collectors, all piping.

#### **VACUUM DRYERS**

375 cu. ft. Stehning, Double Cone, S/S (9)
175 cu. ft. Venuleth, Double Cone, S/S (3)
60 cu. ft. DeDeltrich, Double Cone glass lined
50 cu. ft.F.J. Stokes Double Cone, 304 S/S
40 cu. ft. F.J. Stokes, Rotary, Vacuum, 30"x8", S/S
21 cu. ft. Balfour, Double Cone, glas lined
20"x10" Zimmer dble. screw Holofiltes, S/S jktd.,vac. (4)

#### **MIXERS**

#9 CM Farrel continuous mixer line, complete 25 gal. Ross HDM-25 Planetary Mixer, S/S 8 cu. it. Kelley Duplex, paddle, 5/S, NEW 3.5 cu. ft. J.H. Day, Nauta, 5/S

#### DISPERSERS

30 HP Hockmeyer-XP, variable speed 25 H.P. Shar, XP, variable speed 15 H.P. Meyers, XP, variable speed

#### **FARREL LAB 2 ROLL MILLS**

6"x13" Farrell Lab Mill, 10 HP drive 8"x16" Farrel Lab Mill, electrically heated, variable

speed 3"x7" Farrell Lab Mill, oil heated, variable speed

# LITTLEFORD MIXERS

FKM 8000 D, 169 cu. ft., carbon steel, 4choppers FKM 8000 D, 169 cu. ft., carbon steel KM 4200 D, 86 cu. ft., jacketed, stainless steel FKM 3000 D, 65 cu. ft., jacketed, stainless steel KM 2000 D, 43 cu. ft., jacketed, stainless steel M 20 E, .42 cu. ft., jacketed stainless steel

#### S/S RIBBON BLENDERS

2-215 cu. ft. Cleveland Mixer, double ribbon, 25 H.P. 1-150 cu. ft. Readco, double ribbon, 40 H.P. 1-36 cu. ft. J.H. Day, double ribbon, 10 H.P.

#### **ROTARY DRYERS**

6'x61' Rennenberg Rotary Dryers, type 304 S/S construction, complete with Marlo Heating/Cooling System, rated 500,000 BTU/hr. Dryers are complete with all accessories. New 1973.

#### ARTISAN EVAPORATORS

50 sq. ft. Artisan "Roto-thermn" Evaporators, all S/S construction, F/V internal, 150 PSI jacket (2)

COMPACTING PRESSES
78 ton Bipel Preform, Model 70T, complete
6½ ton Manesty, Model BB3A, 27 station
6½ ton Manesty, Model BB3A, 33 station
4 ton Manesty, Model F-3, single punch

#### REFRIGERATION

200 ton Lewis Package Chiller, complete 30 ton Application Engineers, Package Chiller 15 ton Application Engineers, Package Chiller 10 ton Application Engineers, Package Chiller 7 ton Mayer Package Chiller 5 ton Dunham Bush Package Chiller

5 ton Peuchen Package Chiller, (2)

#### SCREENS 48" Sweco, S/S, 1 deck

30" Sweco, 8/S, 2 deck 18" Kason, S/S, 1 deck, unused (3) 36"x96" Rex-Carrier, 1 deck, S/S (4) 20"x48" Rotex, 1 deck, S/S

于"以这种种"是是在这种形式。这些是不是这种的大型。

#### **HEAT EXCHANGERS**

Shell and tube heat exchangers, stainless steel, up to 2000 sq. ft. surface area-dozensi

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75EV/125EY(2) B. POLYPRO REGESSED RIATE/FRAME/AUGO: MATIG FILTER PRESS 22 CHAMBERS 22 P PLATES 1981

48"X 24" DELAYAL MARK III 316 SS AUTO. GENTRIFUGE 40"X 20" DELAVAL/ATM 316 SS AUTO, CENTRIFUGE 30" X 17" TOLHURST 304 SS PERF. BASKET CENTRIFUGE 60 CU. FT, DEDIETRICH G/L CONICAL VAC. DRYER SYSTEM 70 CU.FT. DEVINE SS II. ROTARY VAC. DRYER SYSTEM 100 CU. FT SS ROTARY VAC. DRYER 10 HP

84"x81'2" BARTLETT SNOW INCONEL 600 INDIRECT CALCINER GARDNER DENVER AIR COMPRESSORS 900 CFM, 200 HP (2): 1100 CFM 250 HP

GARDNER DENVER AIR COMPRESSORS 100 CFM 250 HP 500 GAL, B-P SS SIGMA BLADE 125 PSI JKT, 150 HP 30"x23", REX, 304SS FLUID BED DRYER 20 CU. FT. P-K 316SS, PROCESSOR DRYER 1,500 GAL, 316SS CLD, REACTOR BODY, 4'x13'6", 600/195 PSI 37 & 36 SQ. FT. LUWA THIN FILM EVAPORATORS 350 GAL HAST C, DBL. ARM MIXERS 1,800 GAL. JKY. DBL. ARM MIXER, 40 PSI, 50 HP

10,000 GAL. HAST C TANK, AGITATED, 60 PSI 8,500 GAL. INCONEL REACTOR, 60 PSI, AGIT. 2,000 GAL, 316SS REACTOR, 1000/100 psi 1,300 GAL, 316SS REACTOR, 150 FV/125 PSI

#### CENTRIFUGES

48" x30" Sharples 316 mdl. T1600 (3) 48" x30" Tolhurst Hast. C Auto (3) 48" X24", 316SS, Automatic, W/plow **PUSHER TYPE** 

Bird-Eacher Wyss, 316SS, Mdl. P500, 20", UNUSED DaLaval, 25", 2-Stages, 316SS DISC/BOWL DeLaval, Mdl. BRPX-309, SS, vert., & Mdl. BAF 50, SS Westphella 304 SS Mdl. SAMN-5036 Delaval, 26", 2-Stages, 316 SS

Sharples, Mdl. P1000, P3000, P5000, P5400, (2), PY 414 SS Bird, 40"X50", 36"X72", 32"X50", 24"X38", 18"X42', 18'x28" SS Podbielniak Mdl. 6000 comp. w/controls

VACUUM DRYERS

BASKET

325 cu .ft. Abbe, 304 SS dbi, cone 200 cu .ft. 316SS, 6'6"x11'6", rotary 164 cu. fl. Devine 304 SS dbl. cone 164 cu .ft. Paterson "Conaform," 316SS Dbl. cone 150 cu. ft. SS Twin Shell

150 cu .ft. SS, & 150 cu.ft. Nickel clad 125 cu .ft. SS & CS, 4'x14', 105/90/150 psi 125 & 83 cu. ft. Buflovak SS Rotary 60 cu .ft. Paterson Kelly, SS, dbl. cone 40, 30 & 20 cu.ft. Stokes, SS rotary (4)

30 cu .ft. Pfaudler G/L dbl. cone vacuur

WE RENT/LEASE & SELL CHILLERS

#### SPECIALTY CHEMICAL LIQUIDATION

1,000 GAL. G/L REACTOR, 90FV/105, TW DIL MECH. SEAL.

1,000 GAL. G/L REACTOR, 90FV/105, TW DIL MECH. SEAL.

750 GAL. IA SERIES G/L REACTOR, 100FV/90 PSI.

500 GAL. SERIES EL. G/L REACTOR, 100/95 PSI. TW DR.

300 GAL. SERIES EL. G/L REACTOR, 100/95 PSI. (3)

200 GAL. SERIES EL. G/L REACTOR, 50/96 PSI. (4)

8,000 GAL. HORIZ. G/L BROMINE STORAGE TANK

1,000 GAL. PFAUD. HORIZ. G/L BROMINE STORAGE TANK

1,000 GAL. PFAUD. VERT. G/L JKT. 1ANK 75FV/90 JKT.

500 GAL. PFAUD. VERT. G/L JKT. 1ANK, 40FV/55 JKT.

200 GAL. GLASCOTE G/L RECEIVER (3)

50 GAL. GLASCOTE G/L RECEIVER (3)

100 GAL. GLASCOTE G/L RECEIVER (3)
50 GAL. GLASS LINED RECEIVER, 24" DIA. X24" (4)
26 SQ.FT.PFAUD. G/L THIMBLE CONDENSER 35/100PSI (4)
46"X30" SHARPLES 31GSS, MDL. TICOO CEN FRIFUGE
30 TON FRICK REFRIGERATION COMPRESSOR, COMPLETE
24" SPERRY, SS FILTER PRESS, 2 EYE18 CHAMBERS
18" SPERRY, SS FILTER PRESS, 2 EYE15 CHAMBERS
277 SQ.FT. GRAPHITE "POLYBLOCK" HT. EXCHANGER, 125 PSI
198 SQ.FT. GRAPHITE "POLYBLOCK" HT. EXCHANGER, 100 PSI
FITZPATRICK MDL.D-6 FITZMILL, SS
300 GALL SS REACTOR TW DR. MECH. SEAL

300 GAL, SS REACTOR TW DR.MECH. SEAL 300 GAL. SS VERT, TANK, 40"X40" (2) EQUIPMENT STILL INSTALLED!

NEAT EXCHANGERS
SO.FT. MATERIAL SO.FT MATERIAL
14.615(UNUSED) TITANUM 1.600(UNUSED) 30455/30458 12,250(I/NI(ISED) CS/304LSS (3) 1166 9,134 30155/304SS 1,024(UNUSFU) 8,210 CS/304SS 893 7,775(UNUSED) 301LSS (8) 705(UNUSED) 4,840(UNUSED) CS/304LSS 608 CS/304LSS 30188/30498 CS/304LSS (2 506(UNUSED) 3,C00(UNUSED) GRAPHITE 05/30488 301LSS CS/3015S 462(UNUSED) CS/30/ILSS 2,721 2200(PLATE) C/S GRAPH CS/SS (5) 316SS/316SS TITANIUM (2) 292(UNUSED) 304/3015S TITANIUM 275 208(UNUSED) 30455/30455

VARIOUS GRADES OF STAINLESS STEEL AVAILABLE UP TO 23,000 SO.F.f. MANY USUSED, ALL MATERIALS & PRESSURES

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#### Glass \* Glass \* Glass

#### MEACTORS

4,000 GAL, PFAUDLER, 100/80, TW, MECH. SEAL 3,000 GAL. DEDIETRICH, 100/90, PHILA. DRIVE 3,000 GAL. RA SERIES, 100/00 TW, REGLASSED(2) 2,000 GAL. RA-SERIES, 100/80 TW, REGLASSED 1,000 GAL. RA SERIES, 100/90 TW, REGLASSED 1,000 GAL. E SERIES 25/90 (4)

750 GAL. 25/90 TW, (2) 500 GAL RA SERIES, 100/90, TW 400 GAL. E, SERIES, 25/90, TW 300 GAL. E. SERIES, 25/90, TW 200 GAL. E, SERIES, 25/90 REGLASSED, TW 100 GAL. E, SERIES, 25/90, TW

**OVER 100 GLASS LINED REACTORS IN STOCK** 

#### **GLASS LINED TANKS**

FROM 5-22,000 GALLONS
TRAILER LOADS OF GLASS LINED PARTS AVAILABLE

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#### UNUSED EQUIPMENT

125TON YORK CHILLERS (5) 250 TON CARRIER CHILLERS (2) 60" SWECO SCREEN, 5 HP (2) MIKRO 4TH PULVERIZER, 125 HP (3) 12-24" SS, SWECO SCREENS... NEW & UNUSED

DUST COLLECTORS
SS & CS, PULSE JET AND SHAKER TYPE
400-112,000 SQ.FT.

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DUCON WHT SCHUBBERS, 4,600, 9,000, 12,000. 16,000 CFM

SYSTEMS (3)
750 HP Zurn 150 p.a. 20,000 LBS, BR Ste no Boller
PROCTOR SCHWARTZ (1983), SC (0.1.1 ORYER (2)
STOKES BAG PACKERS (c)

AMETER 0'x 12' A 5'x(c), 416 55 1(0) VAC, FILTER STURTEVAN) HINGLD HAMMER PULVERIZER (2) ZER, FEEDER, AND FAN (2) 36" 3049S MICRONIZER JET MILL SYSTEM

3'x 14' VAC. BELT FILTER SYSTEM, COMPLETE, 6 YEARS OLD, LITTLE USE (2) 1200 TONS CARRIER CHILLER SYSTEMS

#### NEW PHARMACEUTICAL/CHEMICAL LIGHDATION

SHARPLES MDL. P5500, 31655, 40"x22" PROCTOR SCHWARTS 10' GX 100', 2 STAGE CONVE YOR DRYES

FITZAIRE MDL. CA 150,00435-34 UID 86 U DRYUR(2) 4'x30', 304\$\$ BELT FLAKER \$Y5 11 12 54" x 25" LOUISVILLE SS STEAM TUBE ROT, DRYER 8' DIA, PROCTOR SCHWARTZ ROBBS SPEAY ORYER 128 SQLET, LUWA 31655 W/F EVAPORATOR REGLASSED 3,000 & 500 GAL PPAUDLUR BEACTOR 100790

2,800 GAL, 30 H SS REACTOR 255 V/100 PCI 1,000 GAL, 30455 REACTOR 757 (50 PSJ

#### Matricologie VAL CHIES CHAI ्रवा<del>र्वकार्वकार प्रदेश होते । अन्य प्रदेश होते । अन्य प्रदेश होते । अन्य प्रदेश होते । अन्य प्रदेश होते । अन्य</del>

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FILTERS 12'X15' "EIMCOBELT" ROTARY VAC. FILTER SYSTEMS (2) 8'X20' EIMCO, 316SS, HORIZ. VAC. BELT EXTRACTOR 8'X14' EIMCO, 316LSS, PRECOAT ROTARY VAC. FILTER 8'X12' AMETEK, 316SS, ROTARY VAC. FILTER, 300 SO.FT.
5'X8'6 AMETEK, 316SS, ROTARY VAC. FILTER, 337 SO.FT.
6'X21' EIMCO POLYPRO EXTRACTOR SETTLERS (3)
4'X20' ST.LINE HORIZ. VAC. BELT FILTER SYSTEM 48" SHRIVER ALP POLYPRO CGR FILTER PRESS, 57 CHAMBERS
42" DURCO QUADRAPRESS MDL.QPF-42/20-55, POLYPRO

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June 9, 1986

#### Biotechnology Reform Bill

Continued from Page 5 rather than the products created from the

technology."

He called the proposed approach "a radical and unfair departure from other industries" because the majority of products using the new technologies will not be substantially archives products regulated different from existing products regulated

under existing laws.

"IBA believes, at this stage, productspecific review—on a case-by-case basis—is
desirable and has worked in the past," Mr. Godown said, "Unreasonable regulation can stifle innovation and hinder the ability of US

firms to compete in a world economy."

President Reagen recently approved a
new Federal policy for regulating biotechnology under several existing laws. IBA, which has requested government regulation of its products, has endorsed the idea of coordinated regulation that permits companies

# **AUCTION**

TUCSON, ARIZONA JUNE 23-26, 1986 8 AM-5 PM

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# **AUCTION**

developmental freedom while assuring the public that the commercial use of biotechnol-

In his testimony, Mr. Godown characterized a petition filed with EPA by genetic engineering critic Jeremy Rifkin, asking for immediate imposition of financial responsibility standards, as "a product of careless designees."

draftsmanship." "There is no statutory basis on which the agency could possibly base such action," Mr. Godown told the lawmakers. "To construct an insurance requirement or an entire regulatory system on the basis of pure conjecture, or unreasonable fear-rather than on scientifically based probabilities—could throttle an extremely important industry still in its early stages," he said.

Biotechnology opponents advocate tight regulation because they believe there is a risk that some genetically engineered products released in the environment could survive and multiply, causing unforeseen and

perhaps serious environmental problems. Rep. Fuqua said his bill is needed because "there is no uniform, well-considered Federal policy toward the deliberate release of genetically engineered organisms.

"Instead, the agencies are relying on a piecemeal approach that uses existing laws not written with genetically engineered organisms in mind."

Jack Doyle of the Environmental Policy Institute, a biotechnology critic, told the panels that "EPA is the only Federal agency that has a clear mission for environmental protection" and ought to house a Biotechnology Science Board to review all genetically-engi-neered organisms destined for commercial uses in the environment.

Mr. Doyle accused the Reagan Administration of being "willing to play Russian roulette" by exempting certain kinds of genetically-engineered organisms from regulation under the new Federal guidelines.

He also charged that the Administration was trying "to keep EPA from assuming the lead on the deliberate release question." while pre-empting Congress from writing new legislation.

"EPA should be at the center of the 'deliberate release' regulatory system," Mr. Doyle told the subcommittees, "not any White

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BLENDERS & MIXERS

-Readco 5 gal. 89 jktd. vac. mixer 5 HP -Ross 10 gal. Planetary Mixer 88 -Ross 10 gal, Planetary Mixer 83

J.H. Day 10 gal. CS jikid, vsc. Sigme mixer

-Baker Perkins 300 gal. Sigma Blede jikid, vsc. mixer

-Resdco 3 gal. SS Sigma mixer, jikid.

-Pauterson Kelky 1500 cu. ft. CS blender 75 HP

-Paul O. Abbe 90 cu. ft. SS/sanit, jikid, vsc. blender 50HP

-Nauta Mixer 70 cu. ft. SS 10 HP

-Devine 100 cu. ft. Sibon Blender, C/S

-J.H. Day 54 cu. ft. Ribbon Blender (2)

-Baker Perkins 150 gal. C/S jikid vsc. flusher

CENTRIFUGES -Bird Centrifuge CS 40" x 60" Solid Bowl w/drive -Bird Centrifuge CS 18" x 28" Contour Bowl (UNUSED

-Bird Centrifuge CS various sizes (8)
-Bird 36"x55" 34759 Contour Bowl
-Sharples 12" 95 Lab Model/Brighton Lab -Sharples P-5000 decenter 58 180 HP DRYERS

-Gerrico SS 1 cu. ft. dble, cone vac. dryer -Patterson-Kelly 3 cu.ft. twin shell vac dryer SS -Patterson-Kelly 3 cu.ft. twin shell vac dryer 88
-Stokes vac shelf dryers 48.9 sq.ft. (7)
-Plaudier 26 cu.ft. GJL dbl. cone vac. dryer
-Standard Hersey 4"x30" Rotary dryer S8
-Bowen Spray Dryers 71½" & 5"83
-Aeromatic fluid bed S.S. dryer Model 1008T 20e
-Patterson-Kelley 5 cu.ft. 98 Coniced J Vac Dryer
-Stokes 6"x30" Rotary Vac Dryer, Jktd. 68
-Gemco dbl. cone vac dryer 10 cu.ft. 98
-Reitz rotary vac. dryer S8 3"x5" (complete system)
-Patterson Kelley Twin Shell vac. dryer 75 cu.ft.

-Niagera 33-8-18 filters
-Sparkier Filter Mdl #18-D-4 98 jkt./ 33D12, 8-6 98
-U.S. Autojet filter 98 50 sq. ft.
-Eriel 12" 85 filter press
-Hercules Filter 500 sq. ft. 316 98
-Bird (Plannevis) Filter 98, 12" wide x 17" fong
-Sperry 42" Plypro Filter 98, 12" wide x 17" fong
-Sperry 42" Plypro Filter Press 46 Chambers
-Shriver 36" ALP 3 18-58, 41,48 Chambers (2)
-Evirox 55 Rolery filters 5 x 6

GRINDERS & MILLS
-Rose 3-roll mill 4½ x 10" (2)
-Premiter Colloid mill Mdl. K8IF 40HP 31689
-Fitzmill Mdl. No. D-50/98AC/12 30HP 58
-Mikro Pulverizer 98 Model 4TH 3W/15H
-Simpton Musiller 6" \times 12 \times 2 \times 2 \times 2 \times 14 \times 2 \times 2 \times 2 \times 2 \times 2 \times 14 \times 2 \t FILTERS

**NEW ARRIVALS** -Funda Filter 4' dia., 85, jktd. w/20 MP Drive -Aeromatic Fluid Bed Dryer Lab Model #ST-18 -Aeromatic Fluid Bed Dryer Leb Model #ST-15
-Aeromatic Spray Dryer Leb
-Coffold Mill 5 HP 88
-2000 gel. Dimple [ktd. 58]/sanit. Yenk
-150 gel. S8]/sanit. reactor 150 pal
-Strong Scott Rotary Vac Dryer, S3, 3x12
-S3 Kertles 460, 300, 200, 150 (25)
-Baker Perkine 100 gel. C8 [ktd. Sigma Blade Mixer
-Phudler Conicil Vac Dryer QL 72 cu. ft. W.C. w/complete system
-500 gel. S5 [ktd. agit. reactor low pressure (2)
-150 gel. Sigma Blade Mixer, CS, [ktd.
-Reitz Thermoscrew 6" x 10"
-Artisan 1 sq. ft wiped film S5 complete system

Lightnin mixers 1/2 HP w/shafts & props (20) NEW Readco Sigma Blade Mixer 10 gal. 85 duel level (Like New) Elmco 4x12 Belt Filter -Ross 15 gel. 88 jktd. mixtruder 7½ HP Mdl. AMK 15 -Micro Atomizer 98 5HP XP Mdl. #5MA -D & W Rotary Vec. Dryer 316 88 2x7

Henschel high Intensity mixer Model FM 500 14 cu. ft. SS jktd. w/after cooler (complete system)

RIBBON BLENDER -Abbe 40 cu. ft. SS clad ribbon blender -Strong-Scott 200 cu.ft. CS ribbon blender -J.H. Day 40 cu.ft. Ribbon Blender, S/S (3) -Howes 123 cu.ft. ribbon blender SS (ktd

PRESSURE LEAF FILLTERS

-750 sq.ft. U.S. Autojet, Mdi #750, 316 88

-Pronto Filter 89 30" Dia, 450 psi
-industrial Filter 100 sq.ft. Type 122 ID 31 Model OMO
-Enzinger lost filter 88 360 sq.ft.

-Enzinger lost filter 88 360 sq./r.

REACTORS

-Pilauder 2000 gal. jktd reactor 160 psl/75 psi
-Norwelk 3000 & 750 gal. 85 reactor dimple jktd FV/50
-2500 gal. 85 reactor 90/50 psi
-Plaudier 200 gal. 35 reactor
-Plaudier 200 gal. 36 reactor
-Plaudier 200 gal G/L Reactor 90/90 psl Unused
-Downington 1500 gal. Monel Clad reactor 55/70 psi
-Glascote 3000 gal G/L Reactor, 90/100 psi
-13,500 gal. 304 Elc Dim., Jktd, Reactor, 30/100 psi
-Plaudier 500 gal. Q/L jktd. vac, reactor

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CBA-4, 3000 hp Drivers (3 Available) CRA-2, 900 hp Drivers (2 Available) RA-1, 350 hp Drivers (2 Available) CMA-4, 400 hp Drivers (1 Available)

\*Six 1014 x 17, Lined from 1214 cast steel, 2000 PSI Three 71/8 x 17, forged steel Three 5% x 17, forged steel Two 18 x 14 Two 29 x 14

#### **CENTRIFUGALS**

Four 10½ x 8

3M5/2M7, 2500 hp Driver 2M-10, 4000 hp Driver

\*ATTENTION HBA FANS

Our Inventory includes many other cylinders compatible with these frames, other frames compatible with these cylinders, and other drivers for Reciprocating and Centrifugals. Call Jack Burch.



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P.O. Box 1490 Laporte, Texas 77571

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#### **NEW ARRIVALS**

12"x30" BIRD Centrifuge, 316 Stainless with 20 HP motor. (Ref #23692).

18"x28" BIRD Centrifuge, 316 Stainless 10 deg Bowl, 80:1, with 15 HP motor. (Ref #23693).

24"x38" BIRD Centrifuge, 316 Stainless 15/3 deg Bowl, 40:1, with 40 HP motor. (Ref #23694).

500 HP CLEAVER BROOKS BOILER, gasfired, 17,250 PPH, 150 PSI, New 1971. (Ref #23695).

UNUSED 500 HP CLEAVER BROOKS BOILER. gas-fired, Series 700, 17,250 PPH, New 1975. (Ref #23696)

#### **ALSO AVAILABLE**

HEIL Rotary Dryer, Model 105-32, 3-pass, 10'6" Dia X 32' with 100 HP HEIL BLOWER ASSEMBLY. (Ref #20104). (4) BELIOTT DEWATERING PRESSES, Model 2919 36" X 56", 304 Stainless, driven by 10 HP motors, (Ref. #20106A & #20106B).

CHEMICAL MARKETING REPORTER



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20252-Unused Reactor, 600 gal., 3048S dimple jktd. 10138-Plaudler, 800 gal., T-316 L SS, 55 PSt int/150 PSI. 15095-Hicks, 1023 gal., 304 SS, dimple jkt., 150 PSI, 75 PSI

20909 Brighton reactor, 2000 gal., 316L SS, full dimpl. jkt. 20928-Brighton, 4000 gal., 8' dia. x 10', 316 ELC 9/8 20456-Reactor, 4,000 gal., 316 S/S, 8' dia. x 7'8'' st. skds. 15475-Brighton, 4000 gal., 316SS, vacuum. 20287-GH Hicks, 4000 gal., 316 SS, pipe coil jkt. 20923-Richmod Eng. Reactor, 4600 gal., T316 stain/clad. 17927-Unused, 6000 gal., titanium clad, coli jkt., 150 PSI Intern. 15 PSI& FV.

20250-Pritchard, 7000 gal., T304L8S, 1201/2" dia. x 96" st. Pfaudiar 10,000 gal. reactors T316L, 100 psi int. 180 psi jkt., agit. (7) Přaudler 15,000 gal. reactor T316L, 100 pai int., 200 pai jkt.

#### TANKS-S/S

21131-Tank, 950 gal., T304SS, 5'x6' dish bot., flat top, agit. 21283-Tank, S/S vari., 1200 gal., 6' dia.x6', flat top & bot. 21277-Tank, veri., 2500 gal.S/S, 6'dia.x12'H, flat top & bot. 17474-1000 gal., T316SS, 54" dia.x8 6", 3 HP agitator. 20651-Tank, SS, 9000 gal., agit., 12' dia. x 14'6" H. 20655-Tank, SS, 12000 gal., 12 dia. x 14', flat bottom,

17043-Jos Oat horz. tank, 304SS, 18,000 gal., 12'6" dia. x

#### **DUST COLLECTORS**

21145-Dust Collector, 90 sq. ft., vert. CS, 10 HP

21125-Fabri-IJet (dl.SQ9-4B bin vent, 42 sq. ft. 16398-Mikro dust colector, S/S, 63 sq. ft., mdl. 9-6-100. pulse jet. 21153-EVO, bin vent, 72 sq. ft., S/S, 6 HP

20253-Unused EVO pulse jet collector, mdl. 84BF009C, 90 sq. ft. 503563-Unused EVO dust collector, mdl. 99-FV0085, 102

sq. ft. 21192-JH Day mdi. RJ-18RJ36, 125 sq. ft., CS, 3 HP. 21222-Fabri-Jet, mdl. SQ18-80, 151 sq. ft. 20398-Pulse jet collector, "Flexkleen," mdl. 58CT24 AV II

w/175 eq. ft., cloth, C.S. 21286-Mikro dust collector, 285 sq. ft., S/S. 56-Unused EVO Corp. pulse jet dust collector, mdl. 99BF030C, 350 sq. ft.

20332-Flax Kleen dust collector, pulse jet, mdl. 255-Unused EVO Corp. duet collector, shaker type, mdl. MS049C10, 575 sq. ft.

#### SCREENS

1.11

21203-Sprout Waldron sitter, D10, 6 decka. 21150-Sprout Waldron, D10, 1 HP, 10 decka, S/S cont. 1167-Sprout Waldron, D10, 2HP, 10 decks, S/S cont.

#### JUST PURCHASED

21467-Heat Exchanger, 100 sq. ft., vert. all S/S 21465-Tank, S/S, 38" dia. x 46". 21466-Plaudier G/L 50" tenk. 21437-Sandvik 4'x100' S/S belt flaker (4) 1438-Western States 48"x30", perl. S/S basket cen

triluge. (4) 21440-Mussier 500 gal. kettles, S/S, jkt. (2) 21442-Fitzmill FASO-20, jkt., S/S. (8) 21445-Rotex Screen 42"x84", single deck. (12) 21447-York cent. refrig. compressor, 900 HP. (5) 21448-York cent. refrig. compressor, 500 HP. (2) 21449-C/P Air Compressors, 125 HP. (3) 21451-Rex 18" vibratory S/S feeder. (2) 21454-Votator 3-cylinder 6"x48", S/S, (10) 21443-Mueter Tanka, 250, 400 & 700 gal. S/S. 21 409-Lawton 500 ton molding press. (2) 21410-Lawton 300 ton molding press (8)

21338-Davenport 6'x40' Steam tube dryer, T316 L SS 21327-Henschel FM150, S/S, jkt., 3.5 cu. lt., w/motor. 21326-B.P. 500gal., #20 TEUM, Sigma, jkt., 150HP, steel. 21620-Plaudior 25 sq. fl. evap, 8S, Internal condenser 21327-Henschel FM 150 mixer, SS, fkt., control. 21315-Stawart Boling 2 roll mill, 24 "x84" unitized. 21316-Farret #9 FMC mixer w/motor & controls. 1331-Farrell 24"x84" 2 roll mil, unitized. 21330-Cumberland 7" clicer w/approx. 30 HP.

CURMICAL MARKETING REPORTER



21397-Devine Mod.#25 vac. shelf dryer (13) shelves, 356 sq. ft. Double door (30)

#### **MIXERS - PLOW**

503755-Littleford, FKM 800D, SS jacketed, 25 HP. 20754-Littleford, FKM 3000D 65 CF. S/S, full jacket. 19214-New Plow Mixer, 80 cu. ft. 3478S, jacket, 100HP. 20829-Littleford FKM 4200D, S/S, 87 cu. (t. JKT.

#### MIXER/EXTRUDER

17654-AMK 25 gel. Mixttruder, Sigma, ST 7.5 HP. 18298-J.H. Day 25 gel. Disperaton, 25 HP vari main, 10 HP vari screw 20998-AMK 30 gal. S/S, jkt. Sigma, 7.5 HP Main, 6 HP

screw. 21334-Ross 40 gal., S/S hot oil jkt., Sigma 6" disch. screw. 19826-AMK 50 gal. ST. jkt., Sigma. 19421-AMK 75 gal. ST. jkt., Sigma, 10" disch. acrew. 20744-J.H. Day 100 gal., S/S, Sigma, jkt. 40 HP vari main. 21459-B.P. 300 Gal. steel, lkt., 100 HP, vac. sigma, late

#### J.H. Day 150 gal., Mixtruder, S/S, Jkt. 75 psi, w/drives. Reconditioned CALL: STEVE JAKUBIAK

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17136-AMK 120 gal., ST Sigma, 11.5" scraw.
14832-AMK 150 gal., S/S, Sigma 15HP main, 10HP scraw
19494-AMK 150 gal., S/S Sigma, 50 HP main, 10HP scraw
20116-AMK 150 gal., ST, Sigma, 15 HP/10 HP
503527-New Aaron 300 gal., T304SS, mix extruder, Sigma, jkl., up to 200 HP main, 75 HP hyd. scraw.
STILL INSTALLED . . . CALL NOW!

21350-B.P. 500 gal. Sigma steel, jkt. 25 speed,150 HP, Hyd. tilt

## FILTER-ROTARY VAC.

15828-FE,inc. 36" dla.x12", S/8, string disc., 1/2 HP. 17477-FE, inc., 3' dla x 6', T316SS, belt disc., vac pump. 11177-Dort Oliver S/S, 5' die. x 6'L. 11653-Oliver T-316SS, precoat 5'3"x8'. 19226-Elmco valveless precoat, 6' dia. x 6' face, S/S drum. 19431-K.S. flexibelt, 6' dia. x 6' face, 316SS. 18392-Eirnco belt filter, 8'x10', steel drum, w/Nesh pump 15827-Amelek, 8' da.x14'0" face, maxl-belt, S/S. 17938-Elmco, 316SS, 10' die. x 14', knife discharge. 17283-Impco belt filter, 12' dia. x 12', 304SS, Nash vacuum

pump. 20251-K.S. T304, vacuum filter, 12' dia  $\times$  14', 304SS, flex? belt. 20323-Dorr Oliver 11'6" x 16' face, S/S conf. parts.

11486-Eimco 10'x10'rotary vao. liter.

#### DRYER-ROTARY VAC.

19844-Bethlehem Porcupine Processor/Polyester Chip Crystallizer 30" dla. x 18" long, T304 SS, jkt, 20 HP (6)

### Strong Scott Solidire 24" dia. x 16", S/S, jkt. No mtr.

FILTER PRESSES 19846-Shriver P&F filter press, 12"x12" alum. piates, closed delivery, 23 chambers. 20534-Sperry Filter Press, 30", alumn. 20539-Sperry filter press 30", 35 Atuminum plates, 367 eq. 15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet

closing. 15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates. 19799-Clow/Bethishem filter press, 36", recess plate

20076-Sperry filter press, 38", cast fron plates, closed deliv. 19462-Independent litter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers. 20550-Sperry filter press, 42" End closer, 41 alum. plates.

UNUSED CENTRIFUGES 21593-Sharples P5400 Sanitary Centrifuges w/200 HP motor, 25 HP back-

drive, gearbox, 5" pitch conveyor, CIP, control panel (2) LATE MODEL

#### CALL: Ken Kyte (312) 350-2200

CENTRIFUGES 20827-Bird, 18"x24" steel, conical bowl. 20824-Bird, 18"x28" stel, conical bowl (5). 20826-Bird, 24"x38" steel, con. bowl, gearbox. 20819-Bird, 24"x38", S/S. 15 degree, contour bowl 20684-Bird 24"x60". H series, steel w/motor. 20384-Biro 32''x 50'', SS T316 contour. 75HF 12883-Bird 36"x96" contour, 10 deg., T317 ELC. 16753-Alfa Laval, S/S, NX-214-31B, gearbox, 20 HP. 20337-Alfa Laval, NX 314, S/S, gearbox, 20 HP. 20137-Alfa Laval, NX 418-B31-60, 316SS, gearbox 17308-Darr Oliver, 304SS, Merco mdl. 16L, 30 HP. 3565-Sharples, mdl. P 600, gearbox, motor. 19767-Unused Sharples, 3 phase, P3000, S/S, carbide. 20407-Sharples P2000 316SS, 20 HP drive motor. 19768-Unused Sharples P3000, S/S carbide tiles, gear 21359-Sharples P3000 w/gearbo 21359-Snarples P3000 Wygearbox. 20688-Sharples P3000, 52:1 gearbox, S/S casting. 21337-Sharples SG-6(3400) Decanter, S/S, gearbox & mot. 17073-Sharples P3400, S/S, 125/1 gearbox. 19068-Sharples P3400, S/S, gearbox, 40 HP. 21725-Sharples, P3400, S/S, gearbox & motor. 19249-Sharples, P5400, 316/317SS, 200 HP, gearbox.

### CENT-BASKET VERT.

1408-Delaval 22"x16" perf. baskot hyd. drive. 15815-Delaval Mark III., perf. basket, 40"x24", 316SS, 30 19446-Sharples Sludge-Pak, SP-5500, 40"x24" basket

centrifuge. 19253-Western States, 48"x30", S/S perf. bsaket, 50HP

#### LIQUIDATION PERRYVILLE, MD.



20917-I.R.Air Camp SSR250 rot. screw, 250 CFM@ 125

psi. 20918-1000 gsi. SS, 80" x 6'6" agit. 20919-3000 gsi. SS, ketite, 84" x 10'4"H, agit. (2) 20922-2000gsi. SS, tank 72" x 9"H, 80#/FV 20923-4600 gsi. reactor, 68" x 27"H, 200# int., 75# jkt, agit, 15 HP (4)
20925-3000 gal. tenk, 84" x 10'4"H
20926-1000 gal. tank, 72" x 78"H, SS, 50 psi (2)
20927-500 gal. tank, 60" x 60"H, SS, 50 psi (2)

20928-5000 gel. tank, 6'6" x 20'10"H, 60#/FV 20930-Ht. Exch. 848 sq. ft., SS, 8 pass. (2) 20831-Sweco 30" SS, 1 deck 20932-Sweco 48" SS, 1 deck, 20933-Pluse Clean 38-8, SS 1500 CFM, 348 sq. lt. BUY NOW FROM LOCATION ... SAVE!!

#### MIXER RIBBON

20311-JH Day ribbon, 7.5 cu. ft., steel., ½ HP, 21120-Ribbon Blender, 8/8, 10 cu. ft., jkt. 88, 150 pei 20276-Read ribbon blender, 14.7 cu, ft. 30488, 3 HP. 20816-Unused Day, 31688, 23 cu, ft., 5HP. 20189-Robinson, 25 cu, ft., 5/S, jacket, 10 HP. 20985-Int'l 34 cu, ft. S/S dbl. ribbon, 5.HP. (4) 20212-Haas ribbon, 36 cu. ft., 8/8, 15 HP. 19268-Ribbon Mbx 80 cu. ft. T304 S8, 5 HP (4) 19565-Howe, 115 cu, ft., senitary S/S, double spiral ribbon. 20983-Strong Scott blender, 130 cu, ft., 30488, 25 XP gear

2083-Strong Scott Bender, 130 dt. 10, 30455, 20 AF gear motor: 18573-JH Day, 150 ct. it., double ribbon, 26 HP. 21124-Ribbon Blender, 30486 jkt., 180 ct. it.; 30 HP. 19472-Marion paddie blender, 200 ct. if., lacketed, 40 HP. 20614-Unused JH Day ribbon, 5/8 270 ct. it., 25 HP. 21114-JH Day ribbon blerider, 8/9 clad, 76 HP, 480 ct. it.

# LIQUIDATION

#### PENN. LOCATION

20617-BP doubte Briti mixer, 1200 g.sl. 5/S jkt., 75 HP (2) 20618-Readcoldbl. arm mixer, 1200 g.sl. 3175S jkt., 75 HP, 20619-Double arm mixer, 1200 g.sl., 5/S jkt., 75 HP 20816-Unused JH Day ribbon blender, 23 cu. lt., 5 HP (2) 20615-Unused JH Day ribbon blender, 304SS 36 cu. lt., 7.9 20614-Unused JH Day ribben blinder, 5/S 270 cu 11.,25HP 20697-Sharples Super Centrilugo, AS: 16P 20898-Sharples Super Contitugo, AS-16V 20681-Luwa wipe film evaporator, 1.4 sq. ft., 2 HP. 20675-Heat exchanger, 116 sq. ft., kettle reboiler, 316SS 20676-Heat exchanger, 167 sq. lt., horz., 316SS 20677-Heat exchanger, 200 sq. ft. horz . 31655 20880-Heat exchanger, 268 sq. ft., vort. 31655 (2) 20668-Heat exchanger, 273 sq. ft., horz., 31655 (4) 20674-Heat exchanger, 515 sq. (t., vert., reboter 20673-Heat exchanger, 876 sq. (t., horz., 316SS, U-tube. (2) 20672-Heat exchanger, 984 sq. (t., horz., 316SS, U-tube. (2) 20673-Heat exchanger, 1380 sq. (t., horz., 316SS, (2) 20673-Heat exchanger, 1380 sq. (t., horz., 316SS, (2) 20670-Heat exchanger, 1540 sq. ft., horz., 31655-20671-Heat exchanger, 2140 sq. ft., horz., 31655 20675-Heat exchanger, 116 sq. ft., horz., 310-55 20675-Heat exchanger, 180 sq. ft., vert., 31655 (2) 20677-Heat exchanger, 200 sq. ft., horz. condenser, 31655 20680-Heat exchanger, 268 sq. ft., vert. rehoter, 31655 (2) 20665-Heat exchanger, 374 sq. ft., vert., Thermosyphon boder, titanium. (2)

20674-Heat exchanger, 515 sq. ft., vert resyphon rebole 20866-Hoat exchanger, 523 sq. ft , horz 3169S (2)

20673-Heat exchanger, 870 sq. ft . herz. Kettle ruboler, 3169 20672-Heat exchanger, 984 sq. ft., horz., 31855 20687-Heat exchanger, 1178 sq. B., herz., 31655 (2) 20679-Heat exchanger, 1380 sq. ft., horz., 31058, (2)

20870-Hoat exchanger, 1540 sq. ft., herz., 11855 20871-Hoat exchanger, 1540 sq. ft., herz., 11655 20898-Promier Media Mill, model 10RS SS, 40 HP. 20853-Patterson dbl. cono blunder, 500 cn. ft., 30455,304P 20849 Cowles, model ZVTV, 7 S HP, hydraulic lift. (4)

20850-Manton Gualin homogentzor/disporser. SMD75KL3,76 GPH, 8000 psi nun. (4) 20864-NFosh vacuum pump CL3001, 150 HP 20863-Tank, 316SS, 385 gall, 31 day # 6161, dish heads. 20659-Tank, SS, 750 gal , agit wort, 5 dan x5 , dish txot, 2/P 25/12.5 HP, two spood natings, (12)

20658-Tank, S/S, 1500 gal. vert, nult. 0" dla. x 7" dish heads.2 D&L 5 HP. (2) 20657-Tank, S/S, 4300 yal, vuri., fi da., x 9', aghator, 2 HP. 20651-Tank, S/S, 9000 yal, aght. 12' da. x 14' 6'', 2 HP. 20655-Tank, S/S, von'., 12000 yal, 12' da. x 14', flat bottom 20652-Tank, S/S, 20,000 yal, 14' da. x 18' high, flat bottom

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503881-Komorak Groaves, mdl. 75MSS briquetting miss. 20.5" dia. x 4.5" face. 13392-Fitzpatrick Chilgonator, 50 HP, mdl. HA-50-30-2107 20334-KR Komarek, 137 ton, mdl. B-400 briquetter. 18802-Stokes single puchh press, 900-530-1 (T4), 12 ton. 17224-Dorst compac., series TPA15, 20 tons. 10890-Stokes, mdl. R-4 press, 20 ton.

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Drum Dryers/Flakers (1) 24" dia, x 36" Buflovac 38 dble, dru dryer (2) 32" die.x 108" Blaw Knox Ci dbie, drun dryer (\*1) 32"die. x 17'8" Sandvik SS beit flaker (1) 36"die.x 10" Suflovek CI dbie. drum dryer (3) 42"die.x120"Blaw Knox CI dbie. drum

dryer
1) 48"dia.x 28" drum flaker, chrome plated (1) 48"dia.x 40" Ci flaker, mfg. by Buffalo

Foundary
(1) '46"'dia.x 40 drum flaker, nickel plated drum, mfg. Blaw-Knox

Fluid Bed
(1) 60 Kg. Aeromatic, Batch, 6'x9', 56,000
(1) 100 Kg. Aeromatic Model ST 100, sanitary
88 patrick Model FA 250, SS, 20 HP XP Holoflite

twin screw, 12" dia. x 20' long, SS constr., jckt. rated 15 psl, complete with 7.5 HP vari-speed drive.

(1) New/Naver-Used Joy Processor, CS, single screw, 16"x16" long, rated 110 psl @ 340° F., sprocket & chain drive by 1.5 HP varispeed drive.

Rotary Vacuum (1) 200 Cu. Ft. Stokes, SS constr., compit.
(2) 166 Cu. Ft. Praudier, Double Cone, G/L., 30
&FV/50 pel jktd., 15 HP vari-drive
(1) 150 Cu. Ft. Blaw Knox, Nickel
(2) 132 Cu. Ft. Stokes, Nickel
(1) 72 Cu. Ft. Blaw Knox, SS
(1)60 Cu. Ft. Titanium Double Cone
(1) 50 Cu. Ft. Gemco, 316SS sanitary, double

Cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 psig, 304/3168S
(1) 30 Cu. Ft. P-K Twin Shell, 3048S
(1) 20 Cu. Ft. Abbe Twin Cone, 3048S
(2) 20 Cu. Ft. P-K Double Cone, 304ELC

#### Spray

(1) 30"x3' Bowen Laboratory w/3' cone bottom, 88 constr., w/centrifugal atomizer, 3 HP blower & molor (1)
(1) Niro lab size 32"diax2'w/2'cone w/centrif. atomizer S8 contacts
(1) 7"10" Dia. Anhydro Complete System, sanitary S8
(1) 8" Dia. Bowen, 304SS, natural gas fired
(1) 18" dia. Bowen complt. system SS contacts, new 1976

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#### CENTRIFUGES (1) Unused Model B-10 Podbleiniak, Alloy

(1) Sherples AS-26, SS (2) Sherples AS-16P, 316SS (1) Alta-Laval SS Decenter, Horiz., Mdl.

(1) Alia-Lavar So December, Floria, MAISTA (2) Dorr Oliver Mdl. CH30 CSU "Merco," 31688 contacts, 150 HP (1) Baker Perkins S-32 "Pusher, Type," 88, 20 Lin 

sanitary, auto. plow & discharge, rated 85#/cu. ft. @ 900 RPM, 20 HP XP. (1) Tolhuret 48" x 24" Batchmaster,

316SS, perf. backet, w/hydr. plow & 20 HP hydr. drive (1) Toihurst 48"x24" Batchmaster, rubber lined, perf. backet, w/hydr. plow & 20HP hydr. drive

20HP hydr. drive

(2) Tolhurat 48" x 24" Batchmaster, Herestie lined, perf. basket, w/hydr. plow & 20 HP hydr. drive

(1) Fletcher 48" x 28" Suspended type, 88 perf. basket, 20/10 HP (1) Sharples Tornado 48" x 30", 31688, perf. basket, 40 HP XP (1) Weatfalls Model SAMN 5036 (1) Alfa Lavai Model MAPX 210 T24, 88

(2) Sharples C-27, 316 88, wetted parts, 40 HP (1) Sharples C-20, Super-D-Hydrator, SS, 30

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EVAPORATORS

(1) 1.4 Sq. Ft. Laws Wiped Film, 31658, 4.5 HF
(1) 1.4 Sq. Ft. Laws Wiped Film, 31658, 4.5 HF
(1) 1.4 Sq. ft. Liwe filmtuder, 318 LB8
(1) 5.4 Sq. ft. Liwe filmtuder, 318 LB8
(1) 5.4 Sq. ft. Liwe filmtuder, 318 LB8
(2) 5.5 Sq. ft. Votator Evaporator System, 316 SB.
(3) 1.5 Sq. ft. Rodney Hunt. Turbo-Filmt, 304 SB.
(4) 1.0 S Sq. ft. Liwe SS Wiped Film Evap. System, 15/550 psi
(5) 19.5 Sq. ft. Votator Turba-Film; 304 Sent. SS
(7) 1.0 Opal 10HP
(1) 20 Sq. ft. Kentro-Horiz: Adjust 0.Film, 318ELD, 50
(8) 1.0 Sq. ft. Votator Turba-Film 318ELD, 50
(9) 1.0 Sq. ft. Votator Horiz: Adjust 0.Film, 318ELD, 50
(1) Approx 31 Sqi ft. Vert., Turbo-Film Processor, 304
(5) Sc. contacts

SS Contacts
(1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryer,

304/3181 SS ... (1) 40 8g. Ft. Kontro Adjust-O.Film, SS constr., 20 HP (1) 47 8g. Ft. Artisen rising Film, Hast. "C" ... (1) Approx 51 sg. ft. Praudler Wipes film, 316 SS 100/85 & FV

(1) 80 Sq. Ft. Kontro Wiped Film Syal., SS constr., FV/150 psl, 40 HP (1) UNUSED 86 sq. ft. Luwa thin film dryer horiz. 316 L

wetted parts, FV int., 150 psi set steam jkt. (1) 86.4 sq. ft Luwa APP, CS constr., FV & 600psi 75

(1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 SS 15 pel Int., 35 pei jkt 40 HP XP

BLENDERS

FI. P.K. W. with Ital. solide bar, sanit. 304 9
38 /cu it. mex. density
u. Fi. CS Obl. Cone. 7.5 HP
i. Fi. Marion Paddle. CS
Ci. Fi. J. H. Day dbi. rib., CS Constr., 7.5 HP
s. Fi. 304 SS P.K. Twin Shell, w/ini. bar
u. Fi. CS Obl. Cone.
u. Fi. CS Obl. Cone.
u. Fi. CS, Ribbon
u. F. CS, Ribbon
u. F. CS, Ribbon
u. F. F. Sola SS, W/itq. bar.
u. F. CS, Ribbon
u. F. F. Sola SS, W/itq. bar.
u. F. Sola SS, W/itq. bar

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FILTERS

leaves 2-400.9g, Ft. R/L Sparkler 1-327, Sq. Ft. 30488, Ind. Filter, 14

leaves -320 Sq. Pt. Durco 316 SS, 11 Leaves 1-259, Sq. Ft. Prento, Mdl. #3259, 76 ox. 206 Sq. Ff. SS. Sperkler.

1–200 Sq. Ft., SS, Hercules, Horiz, 1-191 Sq. Ft. Enzinger, SS, Vort., 75 psi 1-157.64 sq. Ft. Sparkler model 55-5-28, 316SS 1-150 Sq. Ft. Horiz., 12 Vert. Leaf

1–135 Sq. Ft. Ni, Bowser, Vert. 1–60 Sq. Ft. Enzinger, Vert. Leaves, 316ELC SS ikt., 75/15 pei 1-35 Sq. Ft. Hercules Model 5, 316 SS, horiz. tank vert leeves 50 psi

Rotary Vacuum 1-56.5 Sq. Ft. KS, Inconel 800 2-56.5 Sq. Ft. K-S, 316SS, flexibelt

disch.
1-87.92.Sq. Pt. Feinc. SS wetted parts, epring disch., 58' dis. x 8' face drum.
132 Sq. Ft. Dorr Oliver. 3048S, maxi-belt disch.
1-200 Sq. Ft. Eimco, 316SS, 8'x8'
4-250 Sq. Ft. D.O. 316L SS Precost, 8'

4-250 Sq. Ft. D.O. 316L SS Precost, 8"
x10', senit
1-250 Sq. Ft. K-S 316SS, coil disch.
1-300 Sq. Ft. Elmco, 316SS wetted
parts, precost type w/knife disch.
10" dis. x. 10" drum, compit, w/control panel & aux, equipment,
1-302 Sq. Ft. K-B 616SS, flexibelt disch.
1-314 Sq. Ft. Elmco, precost disch.
316SS
1-400 Sq. Ft. Elmco, 03, Precost
1-50 Sq. Ft. Elmco, 316SS, pait disch.
1-32, 316SS, knife disch.



1 - Approx. 51 Sq. Ft., Pfaudler, Wiped Film Evapor. 316 SS wetted parts ASME Coded, built 1968, Jacket rated 100 psi w/internal vacuum. Complete w/flange mounted motor to Pfaudler TW drive w/mechanical seal, lubricator & integral heat exchanger.

Call today for more details.

WE ARE GLASS SPECIALISTS WITH A TREMENDOUS INVENTORY FEA-TURING UNUSED, USED AND REG. LASSED ITEMS. OUR SHOP PER-SONNEL ARE FULLY TRAINED TO HANDLE GLASS.

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**EQUIPMENT** - CENTRIFUGES

DRYERS, FILTERS, REACTORS

WE WILL PURCHASE INDIVIDUAL ITEMS OR COMPLETE

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TANKS ETC.

PLANTS.

# REACTORS Glass Lined

BIG OR TOO SMALL.

4,000 Gal. Pfaudler, 100/90 psi, TW 1,000 Gal. Pfaudler, 100&FV/90 psi,

,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4DW 1,000-Gai. Pfaudler, RA60 Series, 100& FV/90 psi, 4TW 800 Gsi. SS clad, 60/60 psi 750 gai. DeDietrick, Phila drive

500 Gal. Pfaudler, 100&FV/85 psl. BH

drive 500 Gal. Pfaudier E-series, 4 TW Drive 200 Gal. Pfaudier, 25/90 pai 75 Gal. Pfaudier, 25 & FV/85 psi, 2 HP 50 Gal. Pflauder Body-UNUSED, 25 FV/-

Partial Licting - Much More inventory Glass Lined Storage Tanks & Parts also Available.

Stainleas Steel

5tainless Steel
4,000 Gal. 316SS, Atmos./50 psi, withcolls
3,000 Gal. 34798 Blaw Knox, 150/50 psi
2,500 Gal. 34798 Blaw Knox, 150/50 psi
2,500 Gal. Nooter Autoclave, 316L 2000
psi, FV int. colls
2,000 Gal. Dusenberg, 316 SS,15/35 &
FV int., 50 psi jkt.
1,750 Gal. 316SS Noite, 1467/50 psi
1,500 Gal. 304SS, 10 HP Lightnin
1,000 Gal. 316SS, atmos./75 psi dimple
jckt., 100 psi colls

1,000 Gal. 316SS, atmos./75 pal dimple jckt., 100 pal colls
1,000 Gal. 304SS, 250/80 psl
1,000 Gal. 316SS, 50M/75 psl jkt å
2000 psl li colls
750 Gal. 316SS, 75 å FV/50 psl
750 Gal. 304SS, 50/60 psl
800 Gal. 316SS, 3000psl, 10 HP
800 Gal. 316SS, 50 psl, 1.5 HP XP
500 Gal. 316SS, 55 å FV/55 psl
100 Gal. 316SS, 55 å FV/55 psl
100 Gal. 316SL SS, 500/90 psi
100 Gal. 316ELC SS, 500/90 psi
100 Gal. Theo. Walters, 15 psi shall, 75 100 Gal. Theo. Walters, 15 psi shell, 75 psi jckt & colls, w/Lightnin mixer

\*\* SPECIAL OFFER \*\*\*

1-UNUSED, never installed Krauss
Mattel Turbo Tray Dryer, 29 trays, 9'

9''dia., 316 L SS, all other wetted
parts 316 SS, complete unit.

### PRICED TO SELL

**MIXERS** 4.5 Gal. Kneader Master Cont., SS w/jkt. 5 Gal. AMK 3048S Jektd. Kneader Extruder 15 Ga. W.C. Readoo Sigma Blade Dbl. arm 80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP varispeed 100 Gai., SS, Sigma Blade, Joktd. 40 HP 200 gai. W-P CS dble arm Sigma blade, 20

HP 250 gal, AMK Kneader Extruder, Sigma Blades, CS construc, 40 pelg, trough jkt. 300 Gal. Baker Perskin CS Sigma Blade, jktd. 500 Gal. S.W. Rubber Cement, CS, 2-10 HP

motors (2) Unused 1000 Gal. Sanitary 316SS B-K Dbl. Mothon Change Can; 100&FV/165 PSI, 125HP

125HP
Littleford Model FKM-2000, SS, w/choppers
Prodex Henchel 3.5 Cu. Ft. Mdl: 35 J SS, SS
Const.
7 Cu. Ft. S04SS Nauta Model MBX-70
10.6 Cu. Ft. Nauta D-105, CS
48 Cu. Ft. Marion Paddle, sanit. SS, 20 HP
50 HP Meyers Disperser, 2/500 gal. CS tank,
v-speed & hydr. lift
20 HP Cowles Hi Speed Disperser
15 HP Hockmeyer Ht Speed Disperser
Welding Eng. Model 2FV1V28 Twin screw
Extruder, SS, Contacts, 150 pal

PLUS LOTS - LOTS MORE

MANY MORE ITEMS IN STOCK-CALL IDM TODAY!

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June 9, 1986

**1**>

AUTOCLAVES

#### BING, HOPPENS

12,000 cu. ft. eteel, 2?" x 40", butter betted 5,800 cu. ft. eteel, 12"6" x 48", bolted 1,050 cu. ft. 30458, 8" x 18", plus cone (3) 450 cu. ft. 30458, 8", x 5", cone 375 cu. ft. 30458, 8"8" x 5", 7" cone 270 cu. ft. 30458, 6" x 14" 95 ctl. ft. 30488, 5' x 4', 4' cone

#### DUST COLLECTORS

81 eq. ft. Carter-Day, 12 bage 100 sq. ft. Draco, alluminum 165 sq. ft. Draco, alluminum 225 sq. ft. Fuller, 2400 CFM 603 sq. ft. Mikro Pulsaire # 645A20, SS 765 sq. ft. Carter-Day, 7200 cfm 1130 sq. ft. Mikro Pulsaire, #1F1-48, SS 1480 eq. fl. Carler-Day, SS 12000 CFM 2688 eq. fl. Parsons, 7660 eq. fl. 6000 eq. fl. Slandard, 75000 CFM, UNUSED (4)

DAYERS Blaw-Knox 6'4"x 40" SS vac, dryer, 600 cu. ft. Maihis 24"x48" flaker, chrome plated Sandvik 48"x24" SS belt flaker, UNUSED Sargent 60" x 45" SS conveyor dryer Stokes 8" x 11" drum flaker Bław Knox 32" x 90" dbl. drum Buflovak 42" x 120" dbl. drum, 160 psl Aeromatic #ST-5 fluid bed dryor, 5/10 KG Glatt #WSG300 fluid bed, 304 SS, sanit., 1974 (2) Write 36" x 10" fluid bed, 55, senit,-cooler Stokes 38 ag. ft. Lyophilizer freeze-dryer Struthers-Welle 72" die. pan dryer, jktd. Renneberg 36" x 20" rotary dryer, 316 SS Ranneberg 5'x 25' 304S5 rot. hot air dryera, w/cyclone, etc. (GATX 304 SS hot air dryer, 8' x 35', 7' x 35', 6' x 35' (3) 96" x 50' Louisville SS rolary dryer 10' x 100' GATX rot, steam tube dryers, 140 pai (4) Wysemont #VTL-24 Turbo-tray dryer, 3048S P-K 5 cu. ft. vac. dryer, 30458 P-K 20 cu. ft. vac. dryer, 304L \$5 (2)

Devine 110 cu, fl. 304 SS vac. dryer Pfaudier 165 cu. ft. glass-steel vac. dryers (2) Abbe 325 cu. ft. 31689 vac. dryer Devine 370 cu. fl. 31688 vac. dryer Blaw Knox 38" x 20' vec. dryer, 316L SS, 72 cu. ft. Blaw Knox 66" x 36" vec. dryer, nicke Davine 564 sq. fl. vac. shelf dreer Nito 30" SS spray dryer Turbulaire 48" x 7" spray dryes Bowen 72" spray dryer, 8\$

Abbe 30 cu. ft. 304SS vac. dryer

Bowen 96" apray dryer, SS

#### JUST PURCHASED!

12) Filzpatrick #FA150 fluid bed dryer, SS contacts, 150# capacity, ateam heated, 1980. (1) Bird 36" x 72" contin. centrifuge, 316LSS, 10/30 contour, 1978, w/spare rotating assembly.

#### SLUDGE DEWATERING System...n.J. Stock

'ransamerica Delaval 2 moter (78'') wide -rotewob ophale reary rotti rollor-ritum ing system, built 1984, (3) dov/atering zones, 304SS helt, skid mounted, capac-1984...CALL & SAVE

CALL (609) 267-1600

for

Process



#### Over (50) Bird & Sharples decenters CENTRIFUCES

Sharpies P-5400 D-Canter, 31688, Carbide tiles, late (2)
Sharpies P-3400 D-canter, 31688, tiles (2)
Sharpies P-5000 D-canter, 31688, tiles (2)
Sharpies P-660 D-canter, 31688, back drive
Bird 8", 31688, Decanter, 20 HP
Bird 18" x 28", 31688, Decanter (3)
Bird 18" x 42" Decanter, steel, 10/30
Bird 24" x 38" Decanter, steel, 10/30
Bird 24" x 38" Decanter, 31688, contour-10
Bird 24" x 38" Decanter, 31688, contour (3)
Bird 24" x 56" Decanter, steel Bird 24" x 86" Decanter, SS, 125 HP Bird 32" x 50" Decanter, Monel, contour (2)
Bird 32" x 50" Decanter, 304SS, contour
Bird 36" x 96" Decanter, 316SS, contour
DeLaval NX207 Decanter, 316SS (2)
DeLaval NX214-31B Decanter, 304SS, 20 HP (2) Sharples AS16V "Super," S5 (5) Sharples AS26V "Super," S5 Sharples AS16NF "Super," S5 no foam (3) DeLaval BRPX-309 S6 clarifler

DeLayal BRPX-213-30, 316SS separator/desludgers (3) Westfalia SAMN15007, SS clarifler Westialia SAMN15007, SS clarifler Westialia SAMN15037, Desludgor/Separ Westialia SAMN5036 clarifler, 316SS estfalla SA14-35-076 3-way separator, 316SS Krupp 10" pusher, 316SS, 15 HP Baker-Perkins 10" pusher, 316SS, 15 HP Baker-Perkins 19" pusher, 304SS, 40 HP odbialniak extractor: #6500, 7000, 9500, SS contacts, (3 harples 48" T-1600 auto-basket, 100 Hi Tothurst 48" Batchmaster, rubber lined, 30 HP Sharples 48" Tornado-Matic, SS, 25 HP

#### Delaval 48" Mark 111, 316SS hyd. DeLaval 51" horiz. basket, 316SS, #T1300 CENTRIFUGE PARTS... Sharples, Bird, DeLaval, etc. TIVAPRORATE ARE

21 sq. ft. Rodney-Hunt Turbahim #4, SS 67 sq. ft. Rodney-Hunt, 304 SS, Turbafilm 100 sq. ft. Plaudier, 316L SS, wiped film 600 sq. ft. Gastin-Birmingham dbl. effect, 35 854 sq. ft. Buffovak dbl. effect, SS 1415 sq. ft. Vulcan, 31658 1688 sq. it. Roger dbl. effect, SS Swenson 316SS continuous crystallizer, 9" x 14"

SPECIAL... STAMPLES CENTRIFUGIECE

(2) Sharples #P5400 Super-D-Canters, 31689 contacts, carbide tiles hard surfacing, etc.

#### TANKS & VESSELS

30,000 gel., 30488, 14' x 24', colie, 200 HP egit. (4) 30,000 gel. eteel propene lanks, horiz. 250 pel (5) 20,000 gel., 30488, 12' x 24' (2) 17,000 gel., 30488, 11' x 24' (3) 10,400 gal., 30458, 10'6" x 16', egit. 8,000 gal., 30458, 10'6" x 12' 5,000 gal., 30458, 9'x9', 25 HP egit. 3,500 gal., 30458, 8'x9' 3,000 gal., 30458, 8'x9' 3,000 gal., 30458, 6'x15', 15 pel . (200) 304SS and 316SS tanks from 100 thru 2,500 gellon capacity, horiz. or vertical, many with agitators, jackate, colle, etc. ... CALL FOR LIST!

#### **PULVERIZERS**

läkro #5MA atomizer, 5 HP läkro #6MA atomizer, 58 läkro #2DH pulv., 58, 5 HP Paliman #REF8 pulv., 100 HP Palman #REPS pully., 5075 HP
Palman #PPS pully., 5075 HP
Abbe porcelain pebble mills... 38"x42", 36"x48", 42"x60"
, 48"x60", 60"x48" [7]
Raymond #8058 Hi-alde roller mills, dbl. whizzer [2]
Raymond #73812 Hi-alde roller mill, dbl. whizzer
Raymond #00 lill? hammer mill, 15 HP
Williams "Glant" 64" hi - alde roller mill pully., 200 HP, 6"

FIFTHINGY EVALUES YOUR HIMLES MONIEY ... THE HARMAR IS SHOWN IN THE

20" x 6' Straight line, SS 36" x 1' Ametek, 316SS, 9 eq. ft. ' v 3' Fimon steel 38 so. ft. x 6' Ametek, SS, 98 sq. ft. x 3' Ametek, SS, 55 sq. ft. 3' x 4' Elmco, "Elmcomet" poly 3' x 4' Komline, SS, 75 aq. ft. 1' x 5' Elmco, rubber, 90 aq. ft. 6' x 10' Feinc, SS, 178 sq. ft. 6' x 10' Feinc, SS, 178 sq. ft. 6'x8''x 14'-9'' Passavent 200 belt press, 250 sq. ft.,1982 (4) 8' x 8' Eimco, SS, 200 sq. ft., precost 8' x 10' Dorr-Oliver, 250 sq. ft., 316SS, precost 6' x 12' Eimco, 316SS, precost, 300 sq. ft., (3) 8' x 14' Dorr-Oliver, 31658, precoat, 350 sq. ft. (2) 8' x 14' Dorr-Oliver, Monel, 350 sq. ft. 10' x 10' Elmco, 31658, precoat, 314 sq. ft.

#### FILTERS-PRESSURE

12' x 12' impco, 304 SS, 450 sq. ft. 12' x 14' Komline, 304SS, 525 sq. ft., flexibelt disch.

12 sq. ft. Amatek/Niagara #12, SS
20 sq. ft. Sparkler #RSC20, SS
24 sq. ft. Milapore, 20 plates, SS
54 sq. ft. Funda, SS, jktd.
65 sq. ft. Artisan "Dynamic" filter/washer, SS (2)
150 sq. ft. Niagara "Batchmiser," SS
320 sq. ft. Durco, 316L SS 400 eq. ft. U.S. autojet, S5, (2) 512 eq. ft. Niegara #510-28, 316SS 600 eq. ft. U.S. Autojet, 316SS, sanit. 821 eq. ft. Industrial, SS, & epoxy (2) 1000 eq. ft. U.S. Autojet #1000, 304SS 13" Horman filter press, 21 plates, SS, sanit. 30" Sperry filter press, 11 cu. ft. 38" Shriver filter press, 548 sq. ft., hydraulic 42" Shriver filter press, 777 sq. ft., hydraulic 48" Shriver ALP recessed filter press, SS, 276 sq. ft. 48" Clow, polypropylene recessed, 1500 sq. ft.



(40) S/S mixers & blenders MIXERS, BLENDERS

2.5 cv. ft. Littletord-Lodige, 15/30 HP 6.5 cv. ft. Henschel #FM16D, 17/20 KW 11.5 cu. ft. Henschel #116JSS, 92/46 HP 13,7 cu. ft. Lodige #W600/K1200, mix/cool comb. 35 cu. ft. Day Neuta, #NBX350, 98 60 cu. ft. Gemco dbl. cone, SS 69-cu. ft. Patterson dbl. cone, 86 70 cu. ft. Day Nauta, #NB700, 10 HP

70 cu. ft. Day Nauta, #NB700, 10 HP
75 cu. ft. Day Nauta, SS, jktd.
98 cu. ft. Day Nauta, SS, jktd.
100 cu. ft. Aaron, dbi. ribbon, 31686
110 cu. ft. J.H. Day, dbi. ribbon, 31688
189 cu. ft. Plaudier, dbi. cone, glass steel jktd., vacuum
200 cu. ft. Young, ribbon, SS
312 cu. ft. Patterson, dbi. cene nickel
316 cu. ft. Sprout-Waldron ribbon blender, SS, jktd.
650 cu. ft. Porter, dbi. ribbon, steel
1000 cu. ft. Patterson dbi. cone, 304 SS, 125 HP

#### LIQUIDATION...PHARM. weg. equipment....wo.

(2) Blaw-Knox 6' x 40' SS rotary vacuum dryor, 600 (1) Blaw-Knox thurmo recompressing evap. 3-effect, 1835 sq. II., 89

(1) Mathis 24" 'x 48" dbl. drum flaker, chrome plated, (1) Drein (laker, 4' x 6', 8\$ clad

### FIFTERS-VACUUM

30,000 gal. 304SS fermentors, 14' x 24', 25 pel/vac

colls, 200 HP agit. (4) 15,000 gal. 316LSS reactor, 12'6"x 15' 100 pal int. 200 pel jitt., agit. (3) 10,000 gel. Prauder 316LSS reactor, 138"x 148", 100 pe

10,000 gai. Přaudier 316LSS reactor, 138"x 148", 100 pli
int., 150 pel jkt., hyd. agit. (4)
6,000 gai. 304SS, atm. int., 76 pel jkt., agit.
4,100 gai. 304SS kettle, 16 pel jkt., 5 HP agit.
4,000 gai. 316 LSS Pfaudier reactor, 100 pel-FV, 90 pel
jktd., 25 HP agit., cond., etc... 1979
3,500 gai. 316SS kettle, 20 pel jkt., 7% HP agit. (2)
2,500 gai. 304SS reactor, 75 pel/FV int., 180 pel jkt.
1,500 gai. 304SS reactor, 75 pel/FV int., 150 pel jkt.
1,150 gai. 304SS reactor, 15 pel int., 25 pel jkt., 5 HP agit.
900 gai. 304SS reactor, 300 pel int., 75 pel jkt., colle (3)
500 gai. 304SS reactor, 150 pel int., 150 pel jkt., 60 pel jkt.
300 gai. 304SS reactor, 150 pel int., 150 pel jkt., 60 pel jkt. 300 gal. 316SS reactor, 75 pei/FV int., 60 pei jkt.

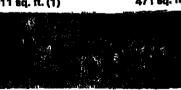
(50)... 3168S and 304SS reactors and kettles from gallon to 400 gallon... call for list. 11.15 1 1 1 1 1

R gal. Pfaudier, 750 pai/FV, 700 pai jkt. 20 gal. Pfaudier, 35 psi, 100 psi jkt., agit. (2) 30 gal. Pfaudier, jktd. 50 gal. Plaudier, 25 pai, 100 pai jkt. 50 gal. Plaudier, 25 pai, 100 pai/yac., 85 pai jkt., agit., 1975 100 gal. Plaudier, 25 pai, 90 pai jkt., agit. 150 gal. Plaudier, 25 pai/yac., 90 pai jkl., agit. 200 gal. Pfaudior, 34 psi, 75 psi jkl., agit. 300 gal. Glascole, 25 psi/vac., 90 psi jkt.

300 gal. Glascote, 25 psi/vac., 90 psi jkt., vari-drive agil.
500 gal. Praudior, 100 psi/vac., 90 psi jkt., vari-drive agil.
500 gal. DeDistrich, 85 psi/vac., 105 psi jkt., 5 HP agil.
750 gal. Praudier, 25 psi, 85 psi jkt., 5 TW agil.
1,000 gal. Praudier, 100 psi, 90 psi jkt., 10 HP agil.
1,000 gal. Praudier, 75 psi/vac., 90 psi jkt., 10 HP agil.
1,500 gal. Praudier, 100 psi/vac., 90 psi jkt., 1981,
1,500 gal. Praudier, 100 psi/vac., 90 psi jkt., 15 HP agil.
2,060 gal. Praudier, 100 psi/vac., 90 psi jkt., 15 HP agil. 2,500 gal. Pfaudler, 150 pei, 90 pei jkl., #TW8 agit. 3,750 gal. Pfaudler, 150 pei jkt., polymerizer, agit. 4,000 gal. Pfaudler, 100 pei, 90 pei jkt., agit: 9,000 gal. Pfaudler, 90 pei/vac., 90 pei jkt.

DEU PEURV NEAT EXCUANGERS IN STOCK...INDIEDIATE DELIVERY ALL units 3/4" On hibror, 75 PSI/full

vac, shell side & tube side, 30 193 98 sq. ft. (3) 141 sq. ft. (3) 213 sq. (t. (2) 320 sq. ft. (2) 911 sq. ft. (1)



(30) NEW HEAT EXCHANGERS...IN STOCK

MENMANNHI YAQIDER SUPPLEUS EQUIPMENT AND REANTS WE PAY CASH TOR DOLLAR.. (609) 267-1600

#### EQUIPMENT CO. INC. WORLD HEADQUARTERS...

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**NEW ACQUISITIONS** 

2 cu. ft. PK 8S Twin Sheli w/bar 2 cu. ft. PK SS Twin Shell w/bar 22" SS Finex screens (3) 23 cu. ft. SS Day double ribbon, 7½ HP 18"x28" 316 SS Bird Solid Bowl Centrif. 3TH Mikro Pulverizer 30 HP STS-100 Aeromatic SS Fiuld Bed Dryer 300 gal. Pfaudler G/L 25/90 psl, 3TW Unused 70 cu. ft. Titenium dbie cone vac Dryer 50 cu. it. 98 Ribbon Blender, Young ind., 20H.P.

SS Ht. Exch.; 524, 246,200, 125, 56, sq. ft. 10 gai. B-P Dispersion (ktd., vao., 20 HP 7 gai. B-P Dispersion (ktd., ram, 25 HP 7 gal. B-P Dispersion Jktd., ram, 25 HP
2½ gal. Day SS Sigma Jktd., vac., 10 HP
.75 gal. Read 316 SS Sigma Jktd., vac. 1 HP
SS Littleford mixers w/choppers
FKM 2000 D, 1200 D, 600 D, 300 D, (5)
SS Twin Shell 40, 30, 20, 3 cu. ft.
18" Shriver P&F, Poly, 12 chambers
40 KW Chromalox hot oil heater

**FILTERS** 

48" poly chambers, 11/1" cake, 4 eye (150)

SS filter presses: 18", 16", 13", 12" (7) CENTRIFUGES

HS36, HS24, S8, 316 SS B-P "Ter Meer"

Mikro: 4TH, 3TH, 2DH, 2SCB, 1SH, 8MA

Raymond: 6058, 5057, 5047, 4237, 3036

Unused 48"x75" Sandvik belt flaker

Wiped film: 173, 87, 25, 21.6, 12 sq. ft.

Con. Vac.: 500, 100, 50, 40, 10, 2.5 c.t.

Rotary Vac.: 130, 40, 20, 10 cu. ft.

Double Drum: 12"x18", 6"x6", S.S.

Belt Flakers: 48"x84', 48"x45', 20"x20'

S.S. Fluid Bed: 100 kg, 60 kg, 30 kg, S.S.

DRYERS/EVAPORATORS

Chilsonator system, all 98, 4LX10D Fitzmills: F20, F8, D6 (8)

3-Roll Mills: 16"x40" to 4"x8" (9)

Ball & Pebble: 8'x12' to 2'x2' (12)

Colloid: 50, 25, 15, 10, 5, 1HP

MILLS/PULVERIZERS

42" Shriver poly, 50 ch., 4 eye

42" Shriver poly, 38 ch., 2 eye

#### REACTORS 3000 gal. 316 SS 100/150 psi varispeed

5500 gai, 304 SS, 15/125 psi, ½ pipe coll iktd., agit. New 1974 jktd., agit, New 1974
3000 gal, 304 SS, 25/125 psi, ½pipe coli jktd., agit New 1974
1000 gal, 316 SS, 30 & FV/150 psi, agit.
500 gal., 316 SS, 75 & FV/70 psi, agit
24 more in stock from 10 to 300 gals., 304

48"x30", 40"x24", 316 SS auto-batch 40", 30", 26", basket, SS & R/L avail. P5000, P3400, P3000, P2000, Sharples 40"x80", 24"x80", 18"x28", 6" Bird & 316 SS. Call Now. DeLaval: NX 207, BRPX 207 Westphalia: SAMN 5036, SA 1435-076

#### **SS BLENDERS**

69 cu. tt. SS Patt. cone, w/liquid bar Ribbon/Paddie: 650, 200, 120, 70, 40, 23 cu. Conical: 320, 200, 150, 130, 100, 75, 69, 40,

30, 20, 10, 5, 2 cu. ft. (18) Twin Shell: 200, 100, 75, 40, 30, 20, 3 cu. ft. some with intensifiers (12)

#### **MIXERS**

Double Arm: 1000, 500, 300, 200, 150, 10, 7, 2½ 75 gal. Sigma, jktd. Pony: 125, 75, 100, 80, 60, 50 gal. (12) Planetary: 100, 85, gal. vacuum Dispersers: 75, 50, 40, 25, 20 15 HP (8) Littleford: FKM 2000D, FKM 600D, FKM 300 D, FKM 130D, Jktd. & choppers (4)

#### **MISCELLANEOUS**

Vac. Pumps: NASH: CL 2003, CL 1003, AT 2004, L5, MD 674 KINNEY: KDH 150, KD 30, KS 27, Stokes: 212 H 10. Tablet Presses: STOKES, MANESTY,

**COLTON, All Sizes** 

George Equipment & Machinery Co. 135 Manchester Place, Newark, N.J. 07104 Tel. (201) 481-0900 Telex No. 138944

Flakers: 6'x5', 3'x6'6", drum

Rotary: 8'x70' to 2'x14' (12)

WESTERN STATES 48"x 30", perf., 316 S/S, 50HP Hyd. CHICAGO BOILER 16 P&3 gal. Sand Mills PADDLE BLENDER 113 cu. ft., C/S, 15 HP 6-CHERRY-BURRELL granulator, model 542, S/S 2-SONIC TRI - HOMO Colloid Mill, 316 S/S, 40 HP EXPERT 75 gal. Reactor, 304 9/S, 275/15 PS1, 3 HP XP VS PARSONS 10 & 6 head net weight dry fillers CAPEM C2F capper
2-STANDARD METAL Ji-600 bottle cleaners

MIKRO-PULVERIZER 3th, 30 HP PATTERSON 50 gal., 316 8/8, 100/30 pai, 2 HP ABC FORM-A-MATIC case former-seater, 70/min

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Tanks: 250-1809 Gal. aterage & mixing, 8/8 & fiberglass 5000 Gal. 304 8/5 storaga tank, vertical, closed, cliabed hds. (2) Richmond 3000 Gal. 8/8 Reactors, 60/40 PSI, 50 HP 2-8pd, Richmond 3000 Gal. 8/8 Reactors, 60/40 PSI, 20 HP.
(3) Plaudier 30 Gal. 8/8 Reactors, 60/40 PSI, 10 HP XP V/S. Hercufes 600 Sq. Ft. "Rolo-Jet" PSI:sq. 316 8/8, 80 PSI. Jacobson 80SF-11 "Universal" Hammer Mill. 100 HP.
(2) Entoleter Type EIM "Cantinul", 48" Dia., 316 8/8, 150 HP.
Simpson "Rotex" model 861 8/fter, 316 8/8, single deck. Fitzmill, 316 8/8, No. DKA8012, 20 HP.
Holo-Fitz Screw Dryer, 18" Dia. x 20" L., C/S, Jkl. trough. Chromalox 200 KW Hot Oil Unit.

Sterling 12 KW Hot Oil Unit. Chronelox 20 KW Hot Oil Unit (All XP) & 15 KW. Hockmeyer 40 HP Disperser, High-speed, \$/5, XP, V/S. Schold 50 HP V/S Disperser, XP, 5/5, High-speed. (3) Susemeyer model 8 RS Sand Mills, 30 HP KP. Morehouse-Cowles 12-30 & 10-25 Sand Mills, 40 & 28 HP XP, Pattarson Steel Sail Mills, 9'x8' & 6'x2' steet Bas Mills, Abba 49x1' 3' Continuous Steel Bas Mill, 60 HP, Pattarson & Abba Caragio-Unad Pebble Mills from 18"x2' 1"-tup.

Reliable 6"x12" Two Roll ME, 5 HP V/S.

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Tubes Pilm 1.13 Sq. Pt. Lab erapotator, 316 S/S, 1 HP complete.

Nichols/Niro 10 ft. Dis. Spray Dryer, 129 #/Hr., sll S/S.

Batter-Perkins & Readco del. arm misers; 24:e0350 gal., C/S, S/S

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AGITATOR-25 HP Chemineer Side 40RPM BLENDER-330 cu.ft. Areco Ribbon Steel End BLENDER-62 cu. ft. Day Ribbon Speel Center (2) CENTRIFUGE-Sharples AS-26-NF Stainless, 5HF CENTRIFUGE PN-4 Shamples D-Center 304 S.S.
URYER-20 ou. ft. Economy Conical Yacuum Steel
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FILTER 135 sq. ft. Bowser Vert. Cupro-Nickel
INGREASOR-4500 HP Phile. 1775 to 5602 RPM
MIXER-Sympson 2UD. 6" day. S.S. 316 MOTOR 5000 HP G.E. 4000 V. Synch 1200 RPM PROCESSOR 10 ou 10 P.K. V. Type S.S. JK. Vac. 550# (3) PROCESSOR-5 ou (t. P.K. V. Type S.S. JK. Vac. 550# (3) REACTOR-3300 ght 304 S.S. 40:50 PSI, 10 RP REACTOR-2000 ght 304 S.S. 15/75 PSI, 70 HP REACTOR 2000 gbt. Steel 15, 15 PSI, 1\2HP SCREEN 4'x10' Tyler, Steel, 2 Deck 3HP SCREEN: 3'x10' Tyler 98, Steel, 2 Deck [2] TANK 4000 gat. Vertical, 304 S. S. 25 PSI UNUSED[2] VACUUM PIMP-1550 CFM (2, 24' Nash H-10, 125 KP VACUUM PUMP-800 CFM (2, 25'' Nash CL. 702 UNUSED

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June 9: 1986

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B154AB, overhead bridge construction, w/ Able 1600 psi triplex pump, holding tank, etc. FURNACE, C-E Air Co. "Cor-Pak" thermo oxy-

LIME SLAKING SYSTEM. Kemco with 2500 cu.

dizers, direct gas fired 8'x2" W x 7'9" H x

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LUBRICATION SYSTEM, Mist Lubricator sys-

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Waldron #36-50, 500 cu. ft., 304SS, 8' x

19'10" w/483 sq. ft. top mounted dust collec-

mixers or pug mills, 304SS contacts, twin 15

PUMPS, Gorman-Rupp #111/2ARB sump pump,

TANK, 10,000 gal. FRP sludge conditioning w/

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BINS, 304L SS contacts, 1300 cu. ft./9720 gal.,

CENTRIFUGE, Bird 24" x 96", 3049S, Model 15

CHLORINATION SYSTEM, Wallas & Tiernan

tacts, heat sealed closer, etc.

2900 RPM bow! speed

w/50 lb. per day rotomete

ft. cloth area, 30" x 9' (5)

etc., etc... all SS contacts

semi-automatic bagging system SS con-

11'6" x 11'6" x 18" high, steel reinforced (2)

solld bowl continuous, 10 deg. contour bowl, Tungsten carbide tiles on conveyor, 150 HP,

#V800 floor mounted modular chlorinator,

COLUMN, 46" dla. x 15'9", 304SS wash

afficiency cyclones, size 210, Type VM (8) DRYERS, Nooter 4' x 14' rotary vac. dryer, 316L

ft. cloth area, (4)
DUST COLLECTOR, EVO reverse pulse, 67sq.

contacts, Model BDF-4 volumetric feeder,

PNEUMATIC THANSFER

Blower Packages

packaged by Flo-Tronics, for pneu-

transfer... (59, 100, 50, 40, 25, 20, 10, 5

HP sizos...ALL NEW!

AGITATOR DRIVE, Lightnin#73Q7-5, 71/2 HP (5) FILTER CLOTH WASHER SYSTEM, Able Model AGITATOR DRIVE, Chemineer #3HTD10, 10 HP B154AB, overhead bridge construction, w/

columns, designed for agitation (2) tor (2)

CYCLONE, DuCon Model 700/175 304SS high MIXERS, Webb, 59" W x 15'L twin shaft paddle

SS shell and Jacket, incoloy ribbon agit. PACKAGING SYSTEM, design to fill bags, pal-ASME 100 psi/FV int. & jacket. 100 HP pack-letize, shrink wrap, etc. automated system.

About 100 psi/FV int. & jacket. 100 HP packaged Reliance drive with freq. converter. PULVERIZERS, Mikro #4TH pulverizers, 125 HP drive /151

Mech. seals, (6)
DUST COLLECTOR, EVO reverse pulse, 320 sq. PULVERIZERS, Mikro #4MP pulverizers, 125 HP

ft., #FTBV99FVO25E, steel contacts (4)

Ourse (5)

DUST COLLECTOR, EVO reverse pulse, 640 sq. PULVERIZERS, Mikro #19CB, 71/2 HP, with air-

DUST COLLECTOR, EVO reverse pulse, 102 sq. PUMPS, Gorman-Rupp 3" self priming 316SS, 5

ft., 30495, 30" x 9'10" (8) HP (4)
ELECTRICAL SWITCHGEAR, 8&C Elec. 25 KV PUMPS, Able #H18-57-45 triplex pump, 50

rindoor FEEDERS, Action gravimetric weigh feeders, HP Model 403-15,000-3,000-BDF-4, 304 SS SHRINK WRAPPERS, CTX Prod. #PSBV4X46

Size "R" metering, auger and disc. cylinder, SiLOS, 50' x 50' bolted sectional

switching panels, 800 amp main bus, 20,000 GPM @ 1500 psi, 50 HP amp, 760 MVA... (20) panels outdoor and PUMPS, Peabody #14DOH-2 cooling tower indoor EDERS, Acrison gravimetric weigh feeders, HP

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Sharples vertical pressure centrifuge P6000, P6800 o P5000 hortz. Krauss Maffel vacuum plate dryer Wyssmont as dryer. Data and pricing to CMR Box-891.

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Chemical Engineering shop for sale in Southern California. Design & Construction of small chemical plants or pilot plants. I want to retire and will negotiate terms with a serious engineer, ideal for 2; one in the field and one in the

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Industrial Chemical Salesman — Experienced-Know edge of Water and Waste Treatment Chemicals Helpful -Temitory Includes NY, NJ, CT, PA-Permanent Positio

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For Sale: Gas Chromatograph, Fisher Model-2400. Price: \$5,000.00 (19) 1-18,000 gal. S/S Vertical Tank, S/S Dimple Jacket-175 PSI, Price: \$22,000.00. (25) 4,400 gal. S/S Vertical Tanks, 1/2" Trick, Dished Heads., (14) 300 gal. 304 ventos i anks, va." Trick, Otened Heads., (14) 300 gal. 304 S/S Vertical Tanks, 20 PSI, Cone Bottom, Price: \$500,00 Ea. (Unused) 2,600 gal. C/S Vertical Tank, 150 PSIG. Price: \$3,500.00, (Many) Pumps—Stainless & Other Alloys. Plus Morel Write: Sun-Belt Equipment Co., Inc., P.O. Box 492, Fountain Inn., S.C. 29644. Tel: (803) 855-3047, OR 855-3048. if you are an independent representative involved in process equipment sales to the Chemical Industry and are ess equipment sees to the Constitution interested in a unique and innovative approach to adding commission dollars, especially from those deals that look like they are getting away, write me, Dante Murray, CMR Box 678. All replies in strict confidence.

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#### **EDC Plant Mothballed** By Lyondell Petrochemical

Lyondell Petrochemical Company said last week that it will mothball its 600-million-pound-per-year ethylene dichloride facility in Baton Rouge, La., on July 31. The company cited "poor profitability and world-wide overcapacity" as reasons for the shut-

The facility is operated by U.S. Industrial Chemicals Company. USI employs about 50 cals plant in Wilmington, Mass. The chemicals people at the plant and says it will attempt to place those workers in other areas within the

Lyondell says it has inventory on hand for customers and has also made "other arrange-

ments" for longer term supplies,

According to Lyondell, the shutdown is not permanent, and the facility will be reopened when market condition improve."

Total US demand for EDC is projected to reach 12.9 billion pounds in 1986. After Lyondell shuts its plant down domestic capacity will total 15.84 billion pounds.

#### Olin Shuts Down Plant

Olin Corporation announced last week that it is shutting down its small specialty chemiety of markets ranging from agricultural chemicals to plastics, and these chemicals will now be produced at and/or shipped from the Olin locations.

CALL JOE DESANTIS (215) 843-2720 TODAY

DeLavel BRPX 213-358 SS 30 HP Bird 40x60 Horiz. Solid Bowl 316 LSS 114:1 Bird 36"x 72" horiz. Solid Bowl Steel KRAUSE-MAFE! 18.5" pusher S/S (rebuilt) SHARPLES T-1600 48"x30" Auto S/S SHARPLES AS-16, 16V SS Clarifler (Rbt.)

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P/K 5 cu.ft. S/S LIG-SOL Processor

Spray Dryer, Bowen 30" lab, Niro 48" utility 8/9 Bowen 4' 6" # 2. Tower Spray Dryer 9/9 gas Abbe 5 cu. ft. 8/8 dbl. cone w/drive MIXERS P/K 10, cu.ft. Tw. Sh, S/S W/L.S. Bar Readco 5 gal. S/S dbl. arm jkt. Vac. 5HP 300 gal. J.H. Day Pony Mixer steel w/can. 160 cu. ft. Young Sft. dbl. rib. jkt. w/drive P/K 20 cu. ft. 8/S Tw. Sh. w/bar

Machinery P.O. Box 345 CMR Ft. Washington, PA 19034 Tales 642583 VIDEX PAT

FEINC 2x3, 5x7, S/S Rot. Vac. String SPARKLER 450 sq.ft. S/S Horiz. tank sani. SPARKLER 450 50.11. 5/5 Holls, tells 558
Sperry 36x36 poly press 75 chambers
35,50,150,300 sq.ft. Press Leaf S/S & STL
12", 18", 24", 42", P/F Presses C.I. poly or S/S
Niagara 342 Sq.Ft. Filter SS hor, tank
4'x20' Straight Line Filter SS 7.5HP w/access.

2000 Gal. Plaudier G/L Reactor 15 HP agit & Beifle SHARPLES Mark 3 14 S/S pert. Autobasket Sharples P-3400 SS horiz. Solid bowl Sharples P-3400 SS Note2, Solid Both M.G. Homog. 200-M6, 8000 PSI Simpson 3FS/9 Jkt. Mix Muller S/S TANKS 6000, 12000, 16000, 29,000 gal. Fkz, D-6 Mill Jkt. Chamber, 7 HP 300 G jkt. SS Groen kettle (2) 12,000 Gal. FRP Vert. TANKS Miro-Puld 1 SH S/S 5HP w/screw leed.

Vrieco 100 cu. ft. S/S Nauta Mixers IF YOU DO NOT SEE WHAT YOU NEED JUST GIVE US A CALL



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CUMBERLAND MOD, 50 & MOD. 37 GRANULATORS 150 H.P. (2) M&A MOD. 30 HAMMER MILLS W/S.S. ROTOR & SWINGING HAMMERS 150 H.P. BATTERY Breaker S.S. Swinging Hammer 250 H.P. w/S.S. IN-FEED & OUT-FEED CONVEYORS

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SURPLUS TO THE NEEDS OF PARKE DAVIS DIVISION OF WARMER LAMBERT, INC. PUBLIC AUCTION: THURS., JUNE 19, 1986 AT 10:30 A.M. AT 870 PARKDALE ROAD, ROCHESTER, MICHIGAN

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SOLAR S.S. SYRINGE STERILIZER 15' WIRE BELT CONVEYOR ARENCO TYPE GAB TUBE FILLER Environmental technonics hi vacuum sterilizer **HULL LYOPHILIZER MOD. 132-FXS-200** gemco s.s. double cone vacuum dryer

PRODUCTION EQUIP.: LGE. QTY. & ASS'! 8.8. GLASS LINED MIXING & TANKS 50 TO 300 GALLON CAP, JACKETED & UNJACKETED, AGITATED & UNAGITATED, LGE. ASST \$4. LIQUID PUMPS, VACUUM PUMPS, COMPRESSORS, MOTORS, DIGITAL & CHART TYPE RECORDERS, FILTER PRESSES, S.S. TRAYS, WORK BENCHES, CONVEYORS, BOTTLE CLEANERS, TURNTABLE ANDERSON & WEST TYPE 600 CAPPERS FILLMATIC 4 HEADED & SINGLE HEADED FILLERS, COZZO MOD. VR-520-235 FILLERS, AVERY LABELERS, ENCODERS, Etc.

FAMOUS NAME HIGH QUALITY LAB EQUIPMENT INCL. SPECTROPHOTO METERS, GAS-CHROMATIGRAPHS, ph METERS DIGITAL & DIALTYPE, SAUTER & METTLER ELECTRONIC SINGLE PAN BALANCES ASS'T LAB SCALES, LAB STERILIZERS, INCUBATORS, TECHNICON AUTÓ ANALYZERS, MICROSCOPES & MANY OTHER ITEMS TOO NUMEROUS TO MENTION

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Continued from Page 3

by Mobil Chemical Company and Exxon Chemical Company.

Last year imports from the Middle East are estimated to have reached 145,000 tons, giving Saudi producers around 35 percent of

the European LLDPE market. In 1985, total linear low sales in Europe



IWKA tube filter/sealer

VOTATOR \$\text{St}\$ 18 Platon Filter, 18 cz.

PERRY CM-3, Vacuum Powder Filter

FILMATIC 486 head pressure filter

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FMC Mod. 243T Flexi-filter

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COLTON 175 tube Filter & sealer

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BARTELT 1M-9 Form and Full w/2 filling heads

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BARTELT 1M-9 Form and Full w/2 filling heads

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ROS9 3-Roll Mill, 4\square 120 Throme Rollers

DAY, ROS8 & KENT 3-colimitis 4 Xx-8, 5 HP

LITTLEFORD Lodigo FKM-800 D, FKM 1200D S/S Blender

LETMARY 2-Roll Flaking Mill

BANBURY BR Milao 7.8 ib. Cap 30hp

MARION 82 Cu. Ft. Milzer

GEMCO 84 Cu. Ft. Milzer

GEMCO 84 Cu. Ft. S/S Conical Blenders

8.GROEN 500 Gal Obl mot. Vari-drive Mixing Kettles

3188/S

2 HAMILTON 125 Gal. 318 S/S tripte metion Vari-drive

3188/S 2 HAM/LTON 125 Gal. 316 S/S triple motion Veri-drive

2 Main, I ON 125 Gal. 318 S/S triple motion Vert-dri Mixing Kettles 385 cu.ft. S/S ribbon mixers JKOT 100HP GROEN 50 & 80 Gal. S/S Mixing Kettles CHERRY BURRELL Mod. 518 Granulator SWECO 24, 48, & 60 S/S Sitters BLAW KNOX NAUTA 75 Cu.Ft., 316 SS Jktd., vacuum VOTATOR S/B Biendors 10"x50" Single & Twin tube DAY CINCINNATUS No. 8 & No. 6 S/S Double Arm Mixe DAY 40 & 50 Gal S/S Popy Mixers

VOTATOR 3/8 Bienders 10":50" Single & Twin tube DAY CINCINNATUS No. 5 & No. 6 S/8 Double Arm Mixt DAY 40 & 50 Gel 3/8 Pony Mixers FITZMILL Mod. DASO-6 5/8 FITZMILL Mod. DASO-6 5/8 FITZMILL Mod. DASO-6 5/8 FITZMILL Mod. PASO 8, 12 & 20 S/S UHSCHEL Mod. MC Comitrol HOBARTY-140/1 & M802 Mixers PREMIER & TRI HOMO Colloid Milla 80 Cu.Ft. M/8 Ribbon Biender 100 to 1000 Gel 3/8 Mixing Kettles, Screper Agitator FITZMILL Mod. J Homoloid S/S FITZMILL Mod. U 3/8 VOTATOR CR 16 Mixer 2-MIKRO Pulverizers Mod. 4TH, 75 HP, KP MIKRO Pulverizers Mod. 4TH, 75 HP, KP MIKRO Mod. 60 ACM Mill 2-RAYMOND Pulverizers 40 HP, XP CHARLOTTE Mod. ND 1 Colloid Mill CONTROL PRINT and Gottacho Coders P.K. Twin Shell Blenders - various sizes MRM, US Bottlers Lans Feeders and Bottle Cleaners RESINA, CAPEM, PNEUMATIC SCALE, REW JERSEY Thorobred 350 Labelers TOLHURST 20" 8/8 Basket Contril SPARKLER Model 18-5 Filter MATEER 33A Automato Filters BAKER PERKINS 6/8 DSL Sigma Mixer - Lab Size UASCHEL Comitrol 1500 & 2000, 30 HP

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SPECIALS

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Cakes 86 mixer 6MB 3 vari
Sergent 85 apron dryer 4\*x20\*
Raymond 3036 Hiside mills (2)
Server 38\* ALP litter 318 38 48 Chambers, plate shilters, hydraulis (2)
Server 38\* ALP litter 318 38 48 Chambers, plate shilters, hydraulis (2)
Change Can 85 Vac. jkt. mixer with (2) 1000 gel. WC kettless
126 HFXP unused
WAP Mixer-Extruder Continue 120 200 HP
FB 24\*\*\*486\*\* 4-roll L calender
FB 2 roll mill 60\*\* & 34\*\*
Banbury mixers & 3 A, 3 D, & & 11 D
APV Paraflow pasteurzer kype HX
Quilin Homogenizers MC16—10,000 pel
New England-unscrambiles-NEH 120 & 200

MIXERS

RIBBON Blenders 88, jkt., 30 & 200 cu. ft.
Ribbon Blenders 1/s, 6, 75, 50 & 215 cu. ft.
Affantic Research cone mixer #6 CV
Dey 88 Naute Mixers 52, 71, & 700 cu. ft.
P-K Contost Blenders 5, 15, 20, 60 cu. ft.
Day Pony Mixedrs 85 50, 80, 125, 175 gel.
Sampson Mullers 88 24", #1P UNUSED 8 #2
FB Banbury mixers #1, 30, 8 & 110

BAKER PERKINS JKT. MIXERS
750 gel. 8 gene Bottom 400 HP

that risks of hot spots are eliminated. As a result the end product is consistently without lumps or fish eyes.

increased by 37 percent and this year are

expected to go up by 24 percent to around

510,000 tons. Last year, low density sales

grew by only 5.8 percent to 3,930,000 tons and

this year is predicted to drop by 5.1 percent to

Linear low's share of the polyethylene sec-

tor is expected to rise to 12 percent this year

BPCI reckons that the LLDPE growth rate

from now on will follow much the same pat-

tern as in the US, where the product's share of

the total low density market has jumped

from around 10 percent in the early '80's to

Saudi producers now dominate the com-

modity end of the linear low market in Eu-

rope, leaving Dow Chemical Europe, CdF

Chimie and Atochem of France, DSM of the Netherlands and BPCI as the major factors

So far much of the growth of linear low has

come from exploiting the performance ad-

vantages of the material over conventional

high-pressure LDPE in the main, non-film

applications such as injection molding, rotomolding, pipe and blow molding. There has

also been a lot of blending at low levels into

"As film is the dominant volume market in

polyethylene," explains Bev Price, BPCI's

marketing manager for polyethylene, film

applications, "further growth depends upon a

switch to the use of pure LLDPE or at least

linear-rich blends in the major film applica-

LINEAR LOW IN STRETCH WRAP

Linear low has already made big inroads in

the stretch wrap sector where it accounts for

80 percent of sales but in other areas of the

film market its share remains relatively

Over the next five years, the biggest

growth in film applications is expected to be

in heavy-duty sacks, liners and carrier bags

with share rising to 50 percent in each mar-

ket by 1990 and refuse bags and lamination/

coextrusion. Altogether, linear low should

have 25 percent, of the low-density market in

In other markets, linear low's share of low

density sales is predicted to increase to 40

percent (from 8 percent at present) in injec-

tion molding, and to 25 percent in pipe and 15

A lot will depend on the willingness of con-

"With the current state of low profitability

verters to switch to the new machinery nec-

and price instability in the market it has been

difficult for them to justify changes of ma-

BPCI believes that its gas-phase process

which uses a Ziegler catalyst system devel-

oped at Lavera enables it to produce a higher

The system has a rate of reaction less tem-

perature dependant than rival processes so

percent in wire and cable by 1990.

essary for LLDPE use.

chinery," Mr. Price admits.

quality product.

in the specialties part of the sector.

from 7.5 percent in 1984.

nearly 50 percent at present.

LDPE film.

tions.'

small.

film by 1990.

At present, the process produces a broad

# LIQUIDATION SALE **UP TO 65% DISCOUNT**

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Strong Scott 30 cu. ft. 88 ribbon blender 50 pel jkt Holofilte 88 dryer-chiller Model D1612-6 Rex 30"x23" 89 fluid Bed Dryer Rodney Hunt wiped RM evep. #6, 120 sq. ft. 2800 gst. reactor 31689, 75 pelê Vac./150 pel jkt Nat. Board, egitator 50HP Gaulin 68 homogenizers MC18, MF 18&MC 45 300 HP OC-8CR Drive 0-120 RPM

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REACTORS-TANKS 2,000 gal. 88 reactors 150 pal. jkt. agit. (2) 1,000 gal. 88 reactors 150 pal. jkt., agit. (2) Phaudler 100 & 500 gal (3), reactors 2,150 gal. 9,8, 100 pal (2), 49 50,000 gal. 8,8, ic., agit. (4)

EVAP.-DRY-CENTRIFUGE Bird 38"-86" He steloy C centrifuge Slaw Knox 1500 & 180 eq.t. 88 Evaporators LUWA Thin Pilm 200, 173, 18 & 20 eq.t. VAC. over 42" ds. x 60"-1, 20 KW STOKES Freeze Dryers 24 & 300 eq.ft. SIRD 24" x38" SS. Cont. Cent. Bowen 10"x30" & 20"x80" SS spray dryer Anhydro 83 spray dryer 80tba/hr evap.

GENERAL Reitz Prebresker 300 HP BCR Drive IR compressor 1009 cfm, 100 psi 200 HP Raymond 12" screen mili 3HP ROT-VAC, Filter 10"x16", 8'x6', 4'x6', 4 3'x3' YORK Turbomaster 7000 Ton Reing, 8TOKES Model 640 Powder Press

gal. Sigme Bottom 400 HP gal. Sigme Bottom 40 HP gal. Sigme Bottom 40 HP gal. Sigme Bottom 40 HP (3) gal. Sigme DNM bottom 20 HP (3) gal. Sigme JNM 111 20 HP gal. Sigme Tith 15 HP gal. Sigme Tith 15 HP gal. Sigme Tith 15 HP gal. Sigme AMK 93 Mixer-Extruder gal. Sigme Vi HP veri equipment equities corporation 866 UNITED NATIONS PLAZA NEW YORK, N.Y. 10017 CABLE: REQUESTS NY

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H&P Equipment Co., Inc	Upjohn Chemical Company
Hardwicke Chemical Co	U.S. Borax & Chemical Corporation
Heico, Inc	Universal Process Equipment, luc
Humphrey Chemical Co	Videx Machinery Corp
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Kalser Chemicals	White Cross Laboratories, Inc.

range of butene-based LLDPE copolymers. higher end of the market with speciaity, dif-BPCI is also developing a new range of higher alpha-olefin polymers based on 4 methyl pentene-1.

4 MP-1 from a plant being built at Grangemouth will be used with butene and ethylene to produce terpolymers to make products of high clarity and strength which BPCI claims will be better than any competing hexene or

The company's strategy is that while Saudi output helps to expand the commodity sector, its special grades of linear low will have the northwest Mediterranean enables it to a big impact on the upper end of the market take advantage of the cheaper transporta-

luctant to compete. "If we are to sell our full output from Lavers, we will have to go into the commodity end at first," says Michel Depraetere,

octene-based LLDPE products. where the Middle East producers will be re-

BPCI's business general manager for poly-olefins. But BP's intention is to move to the

ferentiated products, he says. At present, the Lavera plant, which can be

switched from linear low to HDPE manufacture without stopping production, is mainly producing high density, with linear output only amounting to 25,000 tons. However, this is expected to be raised to 60,000 tons by the end of the year.

Besides having what it regards as a highly efficient production process, BPCI also believes that the location of the Lavera plant in tion costs of naphtha coming in from the Middle East and North Africa.

A new plant at Grangemouth on the western coast of Scotland would be fed with ethylene made from North Sea ethane.

But Mr. Knowland does not rule out the possibility of the second LLDPE plant being built in Germany instead — possibly at the

Erdolchemie site at Worringen. "It's an option we are looking at," says Mr. Knowland "Clearly in a market like West Germany we have to consider ways of exploiting it better."

#### UK AND FRENCH MARKETS

At the moment the company's two main markets for linear low are the UK and France, where it has 30 percent of sales, but it still needs to strengthen its position in Ger-

It hopes to take advantage of continued restructuring in the European polyethylene

"One of the appalling things about this sector is the excess of producers," says Mr. Knowland. "How can all the 15 existing pro-ducers in Europe hope to be successful in the medium or long term in such a highly techni-cal industry? Not all of them can expect to do proper research, give a first class service to their customers and at the same time keep the European plastics industry ahead of its rivals.

"We are looking forward to the time when the number of producers has fallen below 10 or even as low as slx," he says.

BPCI claims it has taken a lead in restructuring in recent years, the latest example of which is a rationalization deal in polypropylane with Atachem (CMR, 6/2/8), pg. 3). 

CUPMICAL MARK STING REPORTER

CITABLETTING

C) PROCESSING

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# CHEMICAL PROFILE

# POLYVINYL CHLORIDE JUNE 9, 1986

SUPPLY	O A D A OITV
PRODUCER	CAPACITY*
Air Products, Calvert City, Ky	200
i Aim Dummittato Donescolo File	
Bardon Colomor I G	
l Bardon illianalie ill.	
l Contain Tood Lake Charles LS	
Formose Delewere City, Del	,,,,,,,,,,
l Gormone Point Comfort. Tex	
l Georgia-Gulf Delawara City. Dal	,,,,,,,,,,,,
Coords Gulf Plaguemine, 1.8.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
BE Goodrich Avon Lake, Ohio	200
REGoodrich Deer Park, Tex	240
RE Goodrich Henry III.	180
RE Goodrich, Louisville, Kv	, , , , , , , , , 200
BE Goodrich, Pedricktown, N.J.	340
RF Goodrich, Plaguemine, La.	
Goodyear, Niagara Falls, N.Y	120
Koveor Saugus, Calif.	50
Occidental, Baton Rouge, La	300
Occidental, Burlington, N.J	250
Occidental, Pottstown, Penn	200
Occidental, Pasadena, Tex	700
Shintech, Freeport, Tex.	1,000
Union Carbide, Texas City, Tex	125
Vista, Aberdeen, Miss	360
Vista, Oklahoma City, Okla	355
Vygen, Ashtabula, Ohio	<u> 100</u>
Total	<del>8,420</del>
	-

\*Millions of pounds per year of PVC resin and copolymer. Capacities vary with product mix. Borden maintains 160 million pounds of PVC capacity on standby at Learningter, Mass, Formosa has added over 400 million pounds of capacity in recent years through debottlenecking at Delaware City and Point Comfort. GenCorp (formerly General Tide and Rubber) sold its Ashtabula plant to Vygen earlier this year. Diamond Shamrock closed its Deer Park, Tex. plant three years ago. Goodrich closed its 150-million-pound-per-year Long Beach, Calif. resin plant in early 1985. Occidental purchased Tenneco's PVC assets in April. Oxy bought a 100-millionpound unit in Burlington, (in addition to an existing Oxy unit there) and a 700-million pound plant in Pasadena, which Oxy says can be expanded by another 10-15 percent. Tenneco closed a smaller unit in Flemington last Fall. Pantasote, a PVC compounder, stopped producing resin at Passaic, N.J. two years ago. Shintech added over 300 million pounds of capacity at Freeport in Aug. 1984. Profile last published 8/27/83; this revision, 6/9/86.

1985; 6,700 million pounds; 1986; 6,900 million pounds; 1990; 7,800 million pounds.

Historical (1976-1985): 4.0 percent per year; future: 3 percent per year through 1990.

Historical (1963-1986): High, 391/2c. per pound, homopolymer, suspension Continued on Page 15

# **BUSINESS BRIEFS**



workforce in its staff departments by ap- technology. Any new food product, package proximately 400 by the end of this year. The or process used in food production involving program will be implemented between now and December 31, with each department demarketed or put into commercial use in veloping its own timetable for staff reduc- North America between July 1, 1985, and tions, the company says. "Reductions will be December 1, 1986, is eligible for the competimade where we can consolidate some position. Winners will be announced at the NFPA tions to make operations more efficient and convention, January 24-28, 1987. keep Amoco competitive within the indus-E.R. SQUIBB & Sons, Inc. and Abbott Labo-

DOW CHEMICAL Company will add a new \$5 million high-speed pilot coater at its Midland, Mich. headquarters to serve the coated paper industry. Scheduled for completion in the second quarter of 1987, the facility will be located near an existing pilot coater and will be completed just as industry capacity for high-speed coated publication paper is expected on line. The new Dow pilot unit is Division has completed new plant facilities

the National Food Processors Association oil refinery in Charleston. MICAL MARKETING REPORTER

AMOCO CORPORATION will reduce the awards for innovation in food packaging

ratories, Inc. will set up a joint agreement whereby Squibb's "Azatam", and possibly a number of other Squibb intravenous drugs, will be marketed as part of Abbott's "Add-Vantage" IV drug admixture system, Squibb is awaiting government approval for its product. Abbott's system was approved in

designed for operating speeds of 6,000 feet at its Charleston, S.C., location for the production of tall oil-derived asphalt additives. In addition, paper size manufacturing facili-DU PONT Company will sponsor jointly with ties are being installed at the company's fall LARGE BIRDS

(12) 40" x 60" Bird decanter, 316 S/St, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 100 HP V-beit main motor drive. New late 60's. Excellent condition. Limited Use. Immediately Available from

SELECT used machinery

(2) 32" x 50" Bird decanter, 316 S/ST, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 75 HP V-belt drive. Excellent condition. Limited Use. immediately Available from Stock.

dition.

#### KOMAREK GREAVES BRIQUETTER

(2) K/G briquetting presses, model 150MS-20.5-9.2, hydraulic roll force, variable speed feeder, discharge conveyor, complete system.

#### **VACUUM DOUBLE DRUM DRYERS**

(2) Blaw Knox designed double drum dryers, 18" x 48" & 36" x 120", chrome plated, each w/vacuum chambers & vacuum pump package. Excellent condition. Ready to Ship.

#### WYSSMONT DRYER

Model N-22, 8' dla trays 22 high, with stainless steel contact parts. May be shipped in one piece. Steam heated.

#### ROTARY FILTERS Ametek 8' x 12' rotary w/belt discharge, 316 stainless, new

1974 - Excellent condition. -Ametek 5" x 81/2' rotary w/belt discharge, 316 stainless. New 1974 - Excellent condition.

#### STAINLESS DRYER

Louisville stainless steel steam tube dryer, 8' dia x 40', stainless steel clad shelf w/stainless steel steam tubes.

#### Also Available:

Roto-Louvre mdl 900-32, 9' dia x 32' long, steam heated, 30 HP motor, all fans & Flex-Clean dust collector.

#### CRYSTALLIZER

Titanium contact parts, 8000 lbs p/hr capacity. New 1976. Complete and still installed.

#### RAYMOND ROLLER MILLS

\* \* \* Just Purchased \* \* \* (3) Raymond high side roller mitts. model 5057, double whizzer separator, fan; feeder, cyclone, duct work & bucket elevator.

#### Model SJS8X52, 8" dia x 52" long, stainless, jacketed, plot

JUST PURCHASED

LARGE SHARPLES

SUPER DECANTERS

(2) Model P8100 Sharples Super

Decanter, 316 S/ST, carbide

tiles, 250 HP main drive, 126:1

gearbox w/backdrive. New 1979. Complete. Excellent Con-

**FLUID BED DRYER** 

Jeffrey fluid bed dryer, 5' x 20',

304 sanitary construction, com-

plete installation including fans,

dust collector, S/ST scrubber &

INDUSTRIAL FILTERS

(2) Industrial Filter Systems, 600

& 200 sq. ft. each, dry cake

discharge, spoxy lined steel

tank w/316 S/ST filter leaves,

completely automated w/com-

puter controlled actuators. Like

**RESIN REACTOR** 

(1) 8500 gallon 316 S/Tt reac-

tor, 30 PSI/full vacuum internal,

15 PSI lacket, 45 PSI 316 S/ST

colls, 10/15 HP 2 speed turble

agitator, S/ST overhead 🐠

denser. New 1977. Still In

STRONG SCOTT

SOLIDAIRE DRYERS

Model SJS-24-16, 24" dla x 16'

long, 304 stainless, dimple jack-

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long, 316 stainless steel, jacket-

et, 50 HP vari drive.

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New Condition.

controls.
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Link Belt Roto-Louvre Dryer10'3 x 36' long, mdi #1003-36, complete system incl 50 HP drive. firebox w/20,000,000 BTU gas burner, all fans, duct work & controls, multi-cyclons collector & Sly 30,000 CFM baghouse. Excellent Condition Still Installed.We will load - Call for FOB Pricing

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(3) 10' x 16', 316 stainless steel, 100 HP Roots vacuum pumps, receivers, interconnecting piping, etc. Rebuilt.

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# JOBS & PEOPLE {{{ }}} JOBS & PEOPLE

Douglas A. Corbishley, who has been elected vice-president for European operations at National Starch & Chemical Corporation. He was most recently divisional vice-president of European starch operations.

KERRY J. PFRIMMER has been appointed to the newly-created position of senior field sales representative for ETD Technology Inc... CHARLES F. PUTNIK has joined A.E. Staley Manufacturing Company as marketing manager for surfactants in the firm's Chemicals Division... MARY R. RICE has been named business manager for color dis-

persions at Harshaw/Filtrol Partnership. J.M. WILLIAMS has been appointed executive vice-president of Chemcentral Corporation... GEORGE SLOTH has been named vice-president for Group 1 Sales at Jacqueline Cochran Inc., a division of American Cyanamid Company... LAWRENCE WA-SOWSKI has been appointed technical manager of the Coatings & Adhesives Division of AZS Corporation.

JAMES J. BARBARITO has been named market manager of the new plastics addi-





### Degussa Corp. Names Sales, Product Managers Degussa Corporation has appointed

Richard Gustafson regional sales manager in the Chemicals Division and Nicole M. Mueller a product manager in the Pigments

Mr. Gustafson will be responsible for sales of hydrogen peroxide and Degussa's com-plete chemical line in Minnesota, Wisconsin, North and South Dakota and upper Michigan.

Miss Mueller will be responsible for developing and implementing product marketing strategies for Degussa's precipitated silica



R. Gustafson

tives market development group at Eastman Chemical Products Inc... WILLIAM J. MAZ-ZAFRO has been appointed senior process manager for chemical technology at Air Products & Chemicals Inc. WILLIAM J.



GODFREY has joined Glenbrook Laboratories as vice-president of marketing. AL WILUNOWSKI has been appointed general manager of Varian Associates Inc.'s Palo Alto, Calif., Instrument Division... PHILIP A. CAMMARANO has been named vice president of finance and administration at Union Carbide Corporation and MAL-



Howard W. Gross, who has been appointed gen-eral manager of Diamond Shamrock Chemicals Company's Process Chemicals Division. He was previously international business manager for

COLM A. KESSINGER has been appointed vice-president of human resources and environmental affairs.

EDWARD W. MEHRER has been named vice-president of accounting and financial reporting at Marion Laboratories Inc... J.D.F. BARNES, chairman of Imperical Chemical Industries PLC's Paints Division, has been appointed an executive director of London-based ICI... JAMES E. CLAGGETT has been named business manager of low density polyethylene and linear low density polyethylene at Enron Chemical Company, formerly Norchem Inc.

C. WENDELL BERGERE JR., PHILIP C. DANFORD, and JULIANNE A. GRACE have been elected corporate vice-presidents of Perkin-Eimer Corporation.

WILLIAM P. HULLIGAN and FRED J. WEINERT have been elected vice-presi-





# Carbide's Amerchol Adds Sales, Marketing Posts

Amerchol has named Ira Altman national sales manager and Frank Freiler marketing manager.

The company says the addition to its sales and marketing operations are part of its plan to expand product line and service capabilities following the acquisition of Amerchol by Union Carbide Corporation.

Amerchol supplies raw materials to the personal care industry. Products include lanoline and derivatives, methyl glucoside derivatives, water-soluble polymers, proteins, sunscreens and other specialty





dents of Waste Management Inc... GUS WADE has been named regional product manager for adhesives and tapes by Commercial Plastics & Supply Corporation.



C. RUSSELL TANTON and STEPHEN C. ISAACS JR. have been appointed technical sales representatives for "Tecnoflon" fluoroelastomers at Montedison USA Inc...

RENE R. BROCHU has been named national accounts manager for fine chemicals at Americah Cyanamid Company.

# MEETINGS CALENDAR 富中



**JUNE 9, 1986** 

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCI-ATION, "Detargents '98" workshop, Rameda Hotel O'Hare, Rosemont, Ill., June 13.

DRUG CHEMICAL & ALLIED TRADES ASSOCIATION, Spring function, Sheraton Centre Hotel, New June 12

FERTILIZER INSTITUTE, 1986 marketing conference. The Greenbrier, White Sulphur Springs, W. Va., June SYNTHETIC ORGANIC CHEMICAL MANUFACTURE ASSOCIATION, seminar on Anglo-American technol

ogy exchange and trade, jointly with Drug, Chemical & Alled Trades Association and National Economic Development Velopment Office, London, England, Sheraton Centre Hotel, (Now York, June 11,

#### THIS MONTH

AMERICAN ASSOCIATION OF SMALL RESEARCH COMPANIES, second annual chambel innovation conference, Marriott Hotel, Saddle Brook, N.J., June 18-20

UROPEAN PETROCHEMICAL ASSOCIATION, luncheon meeting. "The Changing Nordic Petrochemicals Industry and its Future." Sheraton Hotel, Copenhagen, Denmark, June 20.

187/1UTE OF FOOD TECHNOLOGISTS, 48th annual meeting, Dallas Convention Center, Dallas, Tex., June 15-18.

TER, workshop on fertilizer sector development in Africa. IFDC headquarters, Muscle Shoals, Ala., June

INTEH-SOCIETY COLOR COUNCIL, 1986 annual meet-ing, Ryerson Technical Institute, Toronto, Ontario, Canada, jointly with the Canadian Society for Color, June 15-18.

June 15-18.

NATIONAL ASSOCIATION OF PHARMACEUTICAL MANUFACTURERS, mid-year meeting and seminar, Waxman-Hatch amendments, R, drug advertising, Hyatt Regency Hotel (Crystal City), Arington, Va.

#### JULY

AMERICAN ASSOCIATION FOR CLINICAL CHEM-

ISTRY, laboratory products exhibition, McCormick Piace, Chicago, July 15-17.

CHEMICAL MARKETING RESEARCH ASSOCIATION, basic short course on marketing research, Shereton Centre Hotel, New York, July 14-18.

FRAGRANCE FOUNDATION, first international conference on the Conference of t ence, "The Psychology of Perfumery," organized by Warwick Offactory Research Group, University of Warwick, Coventry, UK, July 22-25.

#### LATER ON

MERICAN INSTITUTE OF CHEMICAL ENGINEERS, MY nual Winter meeting, Mami Beach, Fla., November

AMERICAN MICROCHEMICAL SOCIETY, eastern ana-AMERICAN MICHOCHEMICAL SCIELT, BESISTE BEAUTICAL SYMPOSIUM, Jointly with American Chemical Socially and Society for Applied Spectroscopy, New York, Hiton Hotel, New York, October 20-24.

AMERICAN PETROLEUM INSTITUTE, annual meeting,

San Francisco, Calif., November 9-11.
CANADIAN CHEMICAL PRODUCERS ASSOCIATION, International symposium on transportation emergency response, Vancouver, B.C., Canada, September 14-18.

world cherifical congress, jointly with the chemical marketing and economics division of the American Chemical Society, "The Chemical Industry: Where in the World is it Going?", Newporter Resort Hotel, New-port Beach, Calif., September 7-10. CAL SPECIALTIES MANUFACTURERS ASSOCI-

ATION, 73rd annual meeting, Meriott's Harbor Beach, Resort, Fort Lauderdale, Fia., December 7-11.

CHLORINE INSTITUTE, Fall meeting, The Homestead, Hot Springs, Va., September 21-25.

COMMERCIAL DEVELOPMENT ASSOCIATION, Impact of mergers and ecquisitions on the future of jectinol-conventions compressions.

meeting, "Health Messages: New Directions and New Opportunities," J.W. Marriott Hotel, Washington, D.C., September 7-10, EUROPEAN PETROCHEMICAL ASSOCIATION, annual meeting, Monte Carlo, Monaco, September 28-October 1; distribution meeting, October 19-October 22. FERTILIZER ROUND TABLE, 1988 meeting, Sheraton Hotal Ballimora Md. November 17-19.

Hotel, Baltimore, Md., November 17-19. FIRE RETARDANT CHEMICALS ASSOCIATION, Fell conference on proper processing and selection of flame retardants, Klawen Island, S.C., October 19-22. IN AMERICAN PETROCHEMICAL ASSOCIATION,

CATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting, Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-25.

NATIONAL PAINT & COATINGS ASSOCIATION, 99th annual meeting, Atlanta Hilton Hotel, Atlanta, Ga., November 3-5.

PULP CHEMICALS ASSOCIATION, 13th International

naval stores meeting, Waldorf-Astoria Hotel, New York, September 15-17. SOCIETY OF THE PLASTICS INDUSTRY, pastlos show

ork, July 14-18.

CHEURINE INSTITUTE, Fall meeting, The Homestead, ork, July 14-18.

Hot Springs, Va. September 21-25.

COMMERCIAL DEVELOPMENT ASSOCIATION, Impact of mergers and ecquielitions on the future of jectinology of Perturnery, organized by Research Group, University of UK, July 22-26.

COMMERCIAL DEVELOPMENT ASSOCIATION, Impact of mergers and ecquielitions on the future of jectinology driven corporations, Hershey Hotel, Hershey, Pa., October 8-10.

COMPERENCE BOARD, business outlook conference, october 18-10.

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COUNCIL FOR CHEMICAL RESEARCH, annual meeting.

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COUNCIL FOR RESPONSIBLE NUTRITION, annual order of packaging Grand Hotel, Higher England.

COUNCIL FOR RESPONSIBLE NUTRITION, annual contact at the future of jectinology. Attending to place and conference.

SOCIETY OF THE PLASTICS INDUSTRY, plastics show and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, jointly with the Society of Plastics and conference. South, j